Vector01 Answers for No.9844

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -5 , 7 >) \\ ans.3 = (AB = -5\, i + 7\, j) \\ ans.4 = (|AB| = (\sqrt{74}, 8.602)) \\ ans.5 = (u = -0.581\, i + 0.814\, j) \\ ans.6 = (c = -3.487\, i + 4.882\, j) \\ ans.7 = (d = 4.069\, i - 5.696\, j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < -10 , 3 >) \\ ans.3 = (AB = -10\, i + 3\, j) \\ ans.4 = (|AB| = (\sqrt{109}, 10.440)) \\ ans.5 = (u = -0.958\, i + 0.287\, j) \\ ans.6 = (c = -7.663\, i + 2.299\, j) \\ ans.7 = (d = 8.620\, i - 2.586\, j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < 10 , 7 , -3 >) \\ ans.2 = (AB = 10\, i + 7\, j - 3\, k) \\ ans.3 = (|AB| = (\sqrt{158}, 12.570)) \\ ans.4 = (u = 0.796\, i + 0.557\, j - 0.239\, k) \\ ans.5 = (c = 4.773\, i + 3.341\, j - 1.432\, k) \\ ans.6 = (d = -3.978\, i - 2.784\, j + 1.193\, k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -15 , 3 , -12 >) \\ ans.2 = (AB = -15\, i + 3\, j - 12\, k) \\ ans.3 = (|AB| = (3\sqrt{42}, 19.442)) \\ ans.4 = (u = -0.772\, i + 0.154\, j - 0.617\, k) \\ ans.5 = (c = -5.401\, i + 1.080\, j - 4.320\, k) \\ ans.6 = (d = 6.172\, i - 1.234\, j + 4.938\, k) \end{bmatrix}$$

$$Ans5 = < -6 , -35 >, \quad , Ans6 = < 28 , -29 >, \quad , Ans7 = < -21 , -29 , 7 >, \quad , Ans8 = < -24 , -4 , 19 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{113}, 10.630]] \\ ans.2 = \begin{bmatrix} b = < -40 , 35 > \\ |b| = [5\sqrt{113}, 53.151] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < 56 , -49 > \\ |c| = [7\sqrt{113}, 74.411] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 7 , 13 > \\ |a| = [10, 10.000] \\ |b| = [\sqrt{194}, 13.928] \\ |a + b| = [\sqrt{218}, 14.765] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < -19 , 3 > \\ |a| = [10, 10.000] \\ |b| = [\sqrt{194}, 13.928] \\ |a - b| = [\sqrt{370}, 19.235] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < -4 , 18 , 17 > \\ |a| = [\sqrt{182}, 13.491] \\ |b| = [3\sqrt{29}, 16.155] \\ |a + b| = [\sqrt{629}, 25.080] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < 14 , -6 , 5 > \\ |a| = [\sqrt{182}, 13.491] \\ |b| = [3\sqrt{29}, 16.155] \\ |a - b| = [\sqrt{257}, 16.031] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 32.005\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{85}, 9.220]) \\ ans.3 = (\theta = 130.601\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.9872

$$Ans1=\begin{bmatrix} ans.2=(AB=<-8\,,\,6>)\\ ans.3=(AB=-8\,i+6\,j)\\ ans.4=(|AB|=(10,\,10.000))\\ ans.5=(u=-0.800\,i+0.600\,j)\\ ans.6=(c=-6.400\,i+4.800\,j)\\ ans.7=(d=5.600\,i-4.200\,j)\end{bmatrix},\quad ,Ans2=\begin{bmatrix} ans.2=(AB=<13\,,\,-6>)\\ ans.3=(AB=13\,i-6\,j)\\ ans.4=(|AB|=(\sqrt{205},\,14.318))\\ ans.5=(u=0.908\,i-0.419\,j)\\ ans.6=(c=5.448\,i-2.514\,j)\\ ans.7=(d=-6.356\,i+2.933\,j)\end{bmatrix}$$

$$Ans3=\begin{bmatrix} ans.1=(AB=<-4\,,\,8\,,\,-5>)\\ ans.2=(AB=-4\,i+8\,j-5\,k)\\ ans.3=(|AB|=(\sqrt{105},\,10.247))\\ ans.4=(u=-0.390\,i+0.781\,j-0.488\,k)\\ ans.5=(c=-3.123\,i+6.246\,j-3.904\,k)\\ ans.6=(d=3.513\,i-7.026\,j+4.392\,k)\end{bmatrix},\quad ,Ans4=\begin{bmatrix} ans.1=(AB=<-7\,,\,8\,,\,-9>)\\ ans.2=(AB=-7\,i+8\,j-9\,k)\\ ans.3=(|AB|=(\sqrt{194},\,13.928))\\ ans.4=(u=-0.503\,i+0.574\,j-0.646\,k)\\ ans.5=(c=-4.523\,i+5.169\,j-5.815\,k)\\ ans.6=(d=3.015\,i-3.446\,j+3.877\,k)\end{bmatrix}$$

$$Ans5=<-19\,,\,-9>,\quad ,Ans6=<-22\,,\,-15>,\quad ,Ans7=<32\,,\,5\,,\,36>,\quad ,Ans8=<20\,,\,-6\,,\,6>$$

$$Ans9=\begin{bmatrix} ans.1=[|a|=[\sqrt{130},\,11.402]]\\ ans.2=\begin{bmatrix} b=<28\,,\,36>\\ |b|=[4\sqrt{130},\,45.607]\end{bmatrix}\\ ans.4=\begin{bmatrix} c=<-42\,,\,-54>\\ |c|=[6\sqrt{130},\,68.411]\end{bmatrix}\end{bmatrix},\quad ,Ans10=\begin{bmatrix} a+b=<19\,,\,1>\\ |a|=[5\sqrt{10},\,15.811]\\ |b|=[2\sqrt{34},\,11.662]\\ |a+b|=[\sqrt{362},\,19.026]\end{bmatrix},\quad ,Ans11=\begin{bmatrix} a-b=<7\,,\,-19>\\ |a|=[5\sqrt{10},\,15.811]\\ |b|=[2\sqrt{34},\,11.662]\\ |a-b|=[\sqrt{410},\,20.248]\end{bmatrix},\quad ,\begin{bmatrix} M\\ a\\ t\\ h\\ @\\ MUT\end{bmatrix}$$

$$Ans12=\begin{bmatrix} a+b=<-17\,,\,20\,,\,-5>\\ |a|=[\sqrt{267},\,16.340]\\ |b|=[\sqrt{217},\,14.731]\\ |a+b|=[\sqrt{714},\,26.721]\end{bmatrix},\quad ,Ans13=\begin{bmatrix} a-b=<-5\,,\,2\,,\,15>\\ |a|=[\sqrt{267},\,16.340]\\ |b|=[\sqrt{217},\,14.731]\\ |a-b|=[\sqrt{254},\,15.937]\end{bmatrix}$$

$$Ans14=\begin{bmatrix} ans.2=(|a|=[\sqrt{145},\,12.042])\\ ans.3=(\theta=48.366\ degrees)\end{bmatrix},\quad ,Ans15=\begin{bmatrix} ans.2=(|a|=[\sqrt{85},\,9.220])\\ ans.3=(\theta=310.601\ degrees)\end{bmatrix}$$

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Vector01 Answers for No.9873

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -5 , 10 >) \\ ans.3 = (AB = -5\,i + 10\,j) \\ ans.4 = (|AB| = (5\sqrt{5}, 11.180)) \\ ans.5 = (u = -0.447\,i + 0.894\,j) \\ ans.6 = (c = -4.025\,i + 8.050\,j) \\ ans.7 = (d = 3.130\,i - 6.261\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < 4 , -9 >) \\ ans.3 = (AB = 4\,i - 9\,j) \\ ans.4 = (|AB| = (\sqrt{97}, 9.849)) \\ ans.5 = (u = 0.406\,i - 0.914\,j) \\ ans.6 = (c = 3.655\,i - 8.224\,j) \\ ans.7 = (d = -3.249\,i + 7.310\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < -4 , 4 , 8 >) \\ ans.2 = (AB = -4\,i + 4\,j + 8\,k) \\ ans.3 = (|AB| = (4\sqrt{6}, 9.798)) \\ ans.4 = (u = -0.408\,i + 0.408\,j + 0.816\,k) \\ ans.5 = (c = -3.266\,i + 3.266\,j + 6.532\,k) \\ ans.6 = (d = 2.449\,i - 2.449\,j - 4.899\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < 8 , 7 , -7 >) \\ ans.2 = (AB = 8\,i + 7\,j - 7\,k) \\ ans.3 = (|AB| = (9\sqrt{2}, 12.728)) \\ ans.4 = (u = 0.629\,i + 0.550\,j - 0.550\,k) \\ ans.5 = (c = 3.143\,i + 2.750\,j - 2.750\,k) \\ ans.6 = (d = -4.400\,i - 3.850\,j + 3.850\,k) \end{bmatrix}$$

$$Ans5 = < -17 , -18 >, \quad , Ans6 = < -6 , 24 >, \quad , Ans7 = < 16 , -25 , 11 >, \quad , Ans8 = < 4 , 0 , -25 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{130}, 11.402]] \\ ans.2 = \begin{bmatrix} b = < 21 , 27 > \\ |b| = [3\sqrt{130}, 34.205] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < -42 , -54 > \\ |c| = [6\sqrt{130}, 68.411] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < -3 , 20 > \\ |a| = [\sqrt{113}, 10.630] \\ |b| = [2\sqrt{61}, 15.620] \\ |a + b| = [\sqrt{409}, 20.224] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < 17 , -4 > \\ |a| = [\sqrt{113}, 10.630] \\ |b| = [2\sqrt{61}, 15.620] \\ |a - b| = [\sqrt{305}, 17.464] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < 7 , -5 , 1 > \\ |a| = [3\sqrt{17}, 12.369] \\ |b| = [\sqrt{390}, 19.748] \\ |a + b| = [5\sqrt{3}, 8.660] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < -19 , 17 , -19 > \\ |a| = [3\sqrt{17}, 12.369] \\ |b| = [\sqrt{390}, 19.748] \\ |a - b| = [\sqrt{1011}, 31.796] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{74}, 8.602]) \\ ans.3 = (\theta = 35.538\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{85}, 9.220]) \\ ans.3 = (\theta = 139.399\ degrees) \end{bmatrix}$$

Vector01 Answers for No.9884

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -7 , 8 >) \\ ans.3 = (AB = -7\,i + 8\,j) \\ ans.4 = (|AB| = (\sqrt{113}, 10.630)) \\ ans.5 = (u = -0.659\,i + 0.753\,j) \\ ans.6 = (c = -3.951\,i + 4.515\,j) \\ ans.7 = (d = 3.293\,i - 3.763\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < 4 , 7 >) \\ ans.3 = (AB = 4\,i + 7\,j) \\ ans.4 = (|AB| = (\sqrt{65}, 8.062)) \\ ans.5 = (u = 0.496\,i + 0.868\,j) \\ ans.6 = (c = 2.977\,i + 5.209\,j) \\ ans.7 = (d = -4.465\,i - 7.814\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < -4 , -5 , 7 >) \\ ans.2 = (AB = -4\,i - 5\,j + 7\,k) \\ ans.3 = (|AB| = (3\sqrt{10}, 9.487)) \\ ans.4 = (u = -0.422\,i - 0.527\,j + 0.738\,k) \\ ans.5 = (c = -3.373\,i - 4.216\,j + 5.903\,k) \\ ans.6 = (d = 2.530\,i + 3.162\,j - 4.427\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -5 , -13 , -5 >) \\ ans.2 = (AB = -5\,i - 13\,j - 5\,k) \\ ans.3 = (|AB| = (\sqrt{219}, 14.799)) \\ ans.4 = (u = -0.338\,i - 0.878\,j - 0.338\,k) \\ ans.5 = (c = -2.365\,i - 6.149\,j - 2.365\,k) \\ ans.6 = (d = 1.689\,i + 4.392\,j + 1.689\,k) \end{bmatrix}$$

$$Ans5 = < 19 , 8 >, \quad , Ans6 = < 17 , -18 >, \quad , Ans7 = < -38 , 40 , -8 >, \quad , Ans8 = < 40 , -35 , 1 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{89}, 9.434]] \\ ans.2 = \begin{bmatrix} b = < -35 , -56 > \\ |b| = [7\sqrt{89}, 66.038] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < 30 , 48 > \\ |c| = [6\sqrt{89}, 56.604] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 14 , 1 > \\ |a| = [\sqrt{130}, 11.402] \\ |b| = [\sqrt{61}, 7.810] \\ |a + b| = [\sqrt{197}, 14.036] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < 4 , 13 > \\ |a| = [\sqrt{130}, 11.402] \\ |b| = [\sqrt{61}, 7.810] \\ |a - b| = [\sqrt{185}, 13.601] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < -5 , -19 , 6 > \\ |a| = [\sqrt{227}, 15.067] \\ |b| = [\sqrt{257}, 16.031] \\ |a + b| = [\sqrt{422}, 20.543] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < -17 , 1 , -16 > \\ |a| = [\sqrt{227}, 15.067] \\ |b| = [\sqrt{257}, 16.031] \\ |a - b| = [\sqrt{546}, 23.367] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{85}, 9.220]) \\ ans.3 = (\theta = 40.601\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{130}, 11.402]) \\ ans.3 = (\theta = 217.875\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.9885

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <7, -10>) \\ ans.3 = (AB = 7\,i - 10\,j) \\ ans.4 = (|AB| = (\sqrt{149}, 12.207)) \\ ans.5 = (u = 0.573\,i - 0.819\,j) \\ ans.6 = (c = 2.867\,i - 4.096\,j) \\ ans.7 = (d = -5.161\,i + 7.373\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <-5, -7>) \\ ans.3 = (AB = -5\,i - 7\,j) \\ ans.4 = (|AB| = (\sqrt{74}, 8.602)) \\ ans.5 = (u = -0.581\,i - 0.814\,j) \\ ans.6 = (c = -3.487\,i - 4.882\,j) \\ ans.7 = (d = 4.650\,i + 6.510\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <5, -3, -5>) \\ ans.2 = (AB = 5\,i - 3\,j - 5\,k) \\ ans.3 = (|AB| = (\sqrt{59}, 7.681)) \\ ans.4 = (u = 0.651\,i - 0.391\,j - 0.651\,k) \\ ans.5 = (c = 5.208\,i - 3.125\,j - 5.208\,k) \\ ans.6 = (d = -5.859\,i + 3.515\,j + 5.859\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <-10, 6, 8>) \\ ans.2 = (AB = -10\,i + 6\,j + 8\,k) \\ ans.3 = (|AB| = (10\sqrt{2}, 14.142)) \\ ans.4 = (u = -0.707\,i + 0.424\,j + 0.566\,k) \\ ans.5 = (c = -3.536\,i + 2.121\,j + 2.828\,k) \\ ans.6 = (d = 4.950\,i - 2.970\,j - 3.960\,k) \end{bmatrix}$$

$$Ans5 = <-33, -12>, \quad , Ans6 = <21, 4>, \quad , Ans7 = <1, -13, 22>, \quad , Ans8 = <30, -42, -7>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{106}, 10.296]] \\ ans.2 = \begin{bmatrix} b = <20, 36> \\ |b| = [4\sqrt{106}, 41.183] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <-30, -54> \\ |c| = [6\sqrt{106}, 61.774] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <18, -4> \\ |a| = [\sqrt{290}, 17.029] \\ |b| = [\sqrt{74}, 8.602] \\ |a + b| = [2\sqrt{85}, 18.439] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <8, -18> \\ |a| = [\sqrt{290}, 17.029] \\ |b| = [\sqrt{74}, 8.602] \\ |a - b| = [2\sqrt{97}, 19.698] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <-6, -7, 2> \\ |a| = [5\sqrt{10}, 15.811] \\ |b| = [\sqrt{301}, 17.349] \\ |a + b| = [\sqrt{89}, 9.434] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <-18, 17, -20> \\ |a| = [5\sqrt{10}, 15.811] \\ |b| = [\sqrt{301}, 17.349] \\ |a - b| = [\sqrt{1013}, 31.828] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{145}, 12.042]) \\ ans.3 = (\theta = 41.634\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{130}, 11.402]) \\ ans.3 = (\theta = 307.875\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.9895

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <-4, 6>) \\ ans.3 = (AB = -4\,i + 6\,j) \\ ans.4 = (|AB| = (2\sqrt{13}, 7.211)) \\ ans.5 = (u = -0.555\,i + 0.832\,j) \\ ans.6 = (c = -4.438\,i + 6.656\,j) \\ ans.7 = (d = 3.883\,i - 5.824\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <7, 11>) \\ ans.3 = (AB = 7\,i + 11\,j) \\ ans.4 = (|AB| = (\sqrt{170}, 13.038)) \\ ans.5 = (u = 0.537\,i + 0.844\,j) \\ ans.6 = (c = 3.758\,i + 5.906\,j) \\ ans.7 = (d = -3.221\,i - 5.062\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <-5, -5, -3>) \\ ans.2 = (AB = -5\,i - 5\,j - 3\,k) \\ ans.3 = (|AB| = (\sqrt{59}, 7.681)) \\ ans.4 = (u = -0.651\,i - 0.651\,j - 0.391\,k) \\ ans.5 = (c = -5.208\,i - 5.208\,j - 3.125\,k) \\ ans.6 = (d = 5.859\,i + 5.859\,j + 3.515\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <13, -8, 10>) \\ ans.2 = (AB = 13\,i - 8\,j + 10\,k) \\ ans.3 = (|AB| = (3\sqrt{37}, 18.248)) \\ ans.4 = (u = 0.712\,i - 0.438\,j + 0.548\,k) \\ ans.5 = (c = 5.699\,i - 3.507\,j + 4.384\,k) \\ ans.6 = (d = -6.412\,i + 3.946\,j - 4.932\,k) \end{bmatrix}$$

$$Ans5 = <1, 10>, \quad , Ans6 = <24, 58>, \quad , Ans7 = <25, 24, 32>, \quad , Ans8 = <0, 14, -21>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [10, 10.000]] \\ ans.2 = \begin{bmatrix} b = <-24, -18> \\ |b| = [30, 30.000] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <40, 30> \\ |c| = [50, 50.000] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <3, 19> \\ |a| = [\sqrt{61}, 7.810] \\ |b| = [\sqrt{233}, 15.264] \\ |a + b| = [\sqrt{370}, 19.235] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <-13, -7> \\ |a| = [\sqrt{61}, 7.810] \\ |b| = [\sqrt{233}, 15.264] \\ |a - b| = [\sqrt{218}, 14.765] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <15, -5, -2> \\ |a| = [7\sqrt{5}, 15.652] \\ |b| = [\sqrt{97}, 9.849] \\ |a + b| = [\sqrt{254}, 15.937] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <3, -15, -14> \\ |a| = [7\sqrt{5}, 15.652] \\ |b| = [\sqrt{97}, 9.849] \\ |a - b| = [\sqrt{430}, 20.736] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 32.005\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{145}, 12.042]) \\ ans.3 = (\theta = 131.634\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.9898

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -5 , 4 >) \\ ans.3 = (AB = -5\,i + 4\,j) \\ ans.4 = (|AB| = (\sqrt{41}, 6.403)) \\ ans.5 = (u = -0.781\,i + 0.625\,j) \\ ans.6 = (c = -5.466\,i + 4.373\,j) \\ ans.7 = (d = 7.028\,i - 5.622\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < -6 , 3 >) \\ ans.3 = (AB = -6\,i + 3\,j) \\ ans.4 = (|AB| = (3\sqrt{5}, 6.708)) \\ ans.5 = (u = -0.894\,i + 0.447\,j) \\ ans.6 = (c = -4.472\,i + 2.236\,j) \\ ans.7 = (d = 7.155\,i - 3.578\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < 9 , -9 , 7 >) \\ ans.2 = (AB = 9\,i - 9\,j + 7\,k) \\ ans.3 = (|AB| = (\sqrt{211}, 14.526)) \\ ans.4 = (u = 0.620\,i - 0.620\,j + 0.482\,k) \\ ans.5 = (c = 4.957\,i - 4.957\,j + 3.855\,k) \\ ans.6 = (d = -3.718\,i + 3.718\,j - 2.891\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -3 , 5 , -13 >) \\ ans.2 = (AB = -3\,i + 5\,j - 13\,k) \\ ans.3 = (|AB| = (\sqrt{203}, 14.248)) \\ ans.4 = (u = -0.211\,i + 0.351\,j - 0.912\,k) \\ ans.5 = (c = -1.474\,i + 2.457\,j - 6.387\,k) \\ ans.6 = (d = 1.684\,i - 2.807\,j + 7.299\,k) \end{bmatrix}$$

$$Ans5 = < 10 , 1 >, \quad , Ans6 = < -31 , 38 >, \quad , Ans7 = < 26 , -18 , -18 >, \quad , Ans8 = < -24 , -40 , 32 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{106}, 10.296]] \\ ans.2 = \begin{bmatrix} b = < -35 , -63 > \\ |b| = [7\sqrt{106}, 72.069] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < 25 , 45 > \\ |c| = [5\sqrt{106}, 51.478] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < -6 , 14 > \\ |a| = [5\sqrt{10}, 15.811] \\ |b| = [\sqrt{74}, 8.602] \\ |a + b| = [2\sqrt{58}, 15.232] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < -20 , 4 > \\ |a| = [5\sqrt{10}, 15.811] \\ |b| = [\sqrt{74}, 8.602] \\ |a - b| = [4\sqrt{26}, 20.396] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < -14 , 2 , -13 > \\ |a| = [5\sqrt{5}, 11.180] \\ |b| = [\sqrt{134}, 11.576] \\ |a + b| = [3\sqrt{41}, 19.209] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < -2 , -12 , 1 > \\ |a| = [5\sqrt{5}, 11.180] \\ |b| = [\sqrt{134}, 11.576] \\ |a - b| = [\sqrt{149}, 12.207] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{61}, 7.810]) \\ ans.3 = (\theta = 50.194\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{130}, 11.402]) \\ ans.3 = (\theta = 232.125\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.9899

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <-4 , 6>) \\ ans.3 = (AB = -4\,i + 6\,j) \\ ans.4 = (|AB| = (2\sqrt{13}, 7.211)) \\ ans.5 = (u = -0.555\,i + 0.832\,j) \\ ans.6 = (c = -3.883\,i + 5.824\,j) \\ ans.7 = (d = 3.328\,i - 4.992\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <5 , 5>) \\ ans.3 = (AB = 5\,i + 5\,j) \\ ans.4 = (|AB| = (5\sqrt{2}, 7.071)) \\ ans.5 = (u = 0.707\,i + 0.707\,j) \\ ans.6 = (c = 6.364\,i + 6.364\,j) \\ ans.7 = (d = -4.243\,i - 4.243\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <-6 , -3 , 3>) \\ ans.2 = (AB = -6\,i - 3\,j + 3\,k) \\ ans.3 = (|AB| = (3\sqrt{6}, 7.348)) \\ ans.4 = (u = -0.816\,i - 0.408\,j + 0.408\,k) \\ ans.5 = (c = -4.899\,i - 2.449\,j + 2.449\,k) \\ ans.6 = (d = 5.715\,i + 2.858\,j - 2.858\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <-7 , 7 , 14>) \\ ans.2 = (AB = -7\,i + 7\,j + 14\,k) \\ ans.3 = (|AB| = (7\sqrt{6}, 17.146)) \\ ans.4 = (u = -0.408\,i + 0.408\,j + 0.816\,k) \\ ans.5 = (c = -2.858\,i + 2.858\,j + 5.715\,k) \\ ans.6 = (d = 3.674\,i - 3.674\,j - 7.348\,k) \end{bmatrix}$$

$$Ans5 = <-3 , -50>, \quad , Ans6 = <20 , -29>, \quad , Ans7 = <-27 , -15 , -15>, \quad , Ans8 = <23 , 11 , 19>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{145}, 12.042]] \\ ans.2 = \begin{bmatrix} b = <-36 , -32> \\ |b| = [4\sqrt{145}, 48.166] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <54 , 48> \\ |c| = [6\sqrt{145}, 72.250] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <18 , 1> \\ |a| = [5\sqrt{10}, 15.811] \\ |b| = [5\sqrt{5}, 11.180] \\ |a + b| = [5\sqrt{13}, 18.028] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <8 , -19> \\ |a| = [5\sqrt{10}, 15.811] \\ |b| = [5\sqrt{5}, 11.180] \\ |a - b| = [5\sqrt{17}, 20.616] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <18 , -19 , 0> \\ |a| = [\sqrt{161}, 12.689] \\ |b| = [\sqrt{438}, 20.928] \\ |a + b| = [\sqrt{685}, 26.173] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <-8 , 7 , -20> \\ |a| = [\sqrt{161}, 12.689] \\ |b| = [\sqrt{438}, 20.928] \\ |a - b| = [3\sqrt{57}, 22.650] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 32.005\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 237.995\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.9920

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -8 , 4 >) \\ ans.3 = (AB = -8\, i + 4\, j) \\ ans.4 = (\left|AB\right| = (4\sqrt{5}, 8.944)) \\ ans.5 = (u = -0.894\, i + 0.447\, j) \\ ans.6 = (c = -5.367\, i + 2.683\, j) \\ ans.7 = (d = 4.472\, i - 2.236\, j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < -10 , -4 >) \\ ans.3 = (AB = -10\, i - 4\, j) \\ ans.4 = (\left|AB\right| = (2\sqrt{29}, 10.770)) \\ ans.5 = (u = -0.928\, i - 0.371\, j) \\ ans.6 = (c = -8.356\, i - 3.343\, j) \\ ans.7 = (d = 7.428\, i + 2.971\, j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < -6 , 4 , 6 >) \\ ans.2 = (AB = -6\, i + 4\, j + 6\, k) \\ ans.3 = (\left|AB\right| = (2\sqrt{22}, 9.381)) \\ ans.4 = (u = -0.640\, i + 0.426\, j + 0.640\, k) \\ ans.5 = (c = -3.198\, i + 2.132\, j + 3.198\, k) \\ ans.6 = (d = 4.477\, i - 2.985\, j - 4.477\, k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -7 , 4 , 8 >) \\ ans.2 = (AB = -7\, i + 4\, j + 8\, k) \\ ans.3 = (\left|AB\right| = (\sqrt{129}, 11.358)) \\ ans.4 = (u = -0.616\, i + 0.352\, j + 0.704\, k) \\ ans.5 = (c = -3.082\, i + 1.761\, j + 3.522\, k) \\ ans.6 = (d = 4.314\, i - 2.465\, j - 4.931\, k) \end{bmatrix}$$

$$Ans5 = < 3 , 22 >, \quad , Ans6 = < 14 , -26 >, \quad , Ans7 = < -8 , 35 , 4 >, \quad , Ans8 = < 27 , 39 , -31 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [\left|a\right| = [\sqrt{145}, 12.042]] \\ ans.2 = \begin{bmatrix} b = < -54 , -48 > \\ \left|b\right| = [6\sqrt{145}, 72.250] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < 27 , 24 > \\ \left|c\right| = [3\sqrt{145}, 36.125] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 2 , 19 > \\ \left|a\right| = [\sqrt{181}, 13.454] \\ \left|b\right| = [\sqrt{202}, 14.213] \\ \left|a + b\right| = [\sqrt{365}, 19.105] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < -20 , 1 > \\ \left|a\right| = [\sqrt{181}, 13.454] \\ \left|b\right| = [\sqrt{202}, 14.213] \\ \left|a - b\right| = [\sqrt{401}, 20.025] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < 15 , -19 , -6 > \\ \left|a\right| = [\sqrt{181}, 13.454] \\ \left|b\right| = [\sqrt{301}, 17.349] \\ \left|a + b\right| = [\sqrt{622}, 24.940] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < 3 , 3 , 18 > \\ \left|a\right| = [\sqrt{181}, 13.454] \\ \left|b\right| = [\sqrt{301}, 17.349] \\ \left|a - b\right| = [3\sqrt{38}, 18.493] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (\left|a\right| = [\sqrt{61}, 7.810]) \\ ans.3 = (\theta = 50.194\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (\left|a\right| = [\sqrt{85}, 9.220]) \\ ans.3 = (\theta = 220.601\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.10000

$$Ans1=\begin{bmatrix} ans.2=(AB=<8\,,-8>) \\ ans.3=(AB=8\,i-8\,j) \\ ans.4=(|AB|=(8\sqrt{2},11.314)) \\ ans.5=(u=0.707\,i-0.707\,j) \\ ans.6=(c=6.364\,i-6.364\,j) \\ ans.7=(d=-3.536\,i+3.536\,j) \end{bmatrix},\quad ,Ans2=\begin{bmatrix} ans.2=(AB=<10\,,-4>) \\ ans.3=(AB=10\,i-4\,j) \\ ans.4=(|AB|=(2\sqrt{29},10.770)) \\ ans.5=(u=0.928\,i-0.371\,j) \\ ans.6=(c=7.428\,i-2.971\,j) \\ ans.7=(d=-4.642\,i+1.857\,j) \end{bmatrix}$$

$$Ans3=\begin{bmatrix} ans.1=(AB=<-3\,,3\,,-10>) \\ ans.2=(AB=-3\,i+3\,j-10\,k) \\ ans.3=(|AB|=(\sqrt{118},10.863)) \\ ans.4=(u=-0.276\,i+0.276\,j-0.921\,k) \\ ans.5=(c=-1.381\,i+1.381\,j-4.603\,k) \\ ans.6=(d=2.486\,i-2.486\,j+8.285\,k) \end{bmatrix},\quad ,Ans4=\begin{bmatrix} ans.1=(AB=<-8\,,8\,,-7>) \\ ans.2=(AB=-8\,i+8\,j-7\,k) \\ ans.3=(|AB|=(\sqrt{177},13.304)) \\ ans.4=(u=-0.601\,i+0.601\,j-0.526\,k) \\ ans.5=(c=-5.412\,i+5.412\,j-4.735\,k) \\ ans.6=(d=4.811\,i-4.811\,j+4.209\,k) \end{bmatrix}$$

$$Ans5=<10\,,9>,\quad ,Ans6=<43\,,21>,\quad ,Ans7=<20\,,-5\,,30>,\quad ,Ans8=<22\,,-22\,,-10>$$

$$Ans9=\begin{bmatrix} ans.1=[|a|=[\sqrt{61},7.810]] \\ ans.2=\begin{bmatrix} b=<18\,,-15> \\ |b|=[3\sqrt{61},23.431] \end{bmatrix} \\ ans.4=\begin{bmatrix} c=<-30\,,25> \\ |c|=[5\sqrt{61},39.051] \end{bmatrix} \end{bmatrix},\quad ,Ans10=\begin{bmatrix} a+b=<18\,,2> \\ |a|=[6\sqrt{5},13.416] \\ |b|=[10,10.000] \\ |a+b|=[2\sqrt{82},18.111] \end{bmatrix},\quad ,Ans11=\begin{bmatrix} a-b=<6\,,-14> \\ |a|=[6\sqrt{5},13.416] \\ |b|=[10,10.000] \\ |a-b|=[2\sqrt{58},15.232] \end{bmatrix},\quad ,\begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12=\begin{bmatrix} a+b=<19\,,16\,,-11> \\ |a|=[\sqrt{161},12.689] \\ |b|=[\sqrt{217},14.731] \\ |a+b|=[3\sqrt{82},27.166] \end{bmatrix},\quad ,Ans13=\begin{bmatrix} a-b=<1\,,-4\,,1> \\ |a|=[\sqrt{161},12.689] \\ |b|=[\sqrt{217},14.731] \\ |a-b|=[3\sqrt{2},4.243] \end{bmatrix}$$

$$Ans14=\begin{bmatrix} ans.2=(|a|=[\sqrt{74},8.602]) \\ ans.3=(\theta=54.462\ degrees) \end{bmatrix},\quad ,Ans15=\begin{bmatrix} ans.2=(|a|=[\sqrt{145},12.042]) \\ ans.3=(\theta=221.634\ degrees) \end{bmatrix}$$

Vector01 Answers for No.10017

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -5 , 4 >) \\ ans.3 = (AB = -5\, i + 4\, j) \\ ans.4 = (|AB| = (\sqrt{41}, 6.403)) \\ ans.5 = (u = -0.781\, i + 0.625\, j) \\ ans.6 = (c = -4.685\, i + 3.748\, j) \\ ans.7 = (d = 5.466\, i - 4.373\, j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < 8 , 4 >) \\ ans.3 = (AB = 8\, i + 4\, j) \\ ans.4 = (|AB| = (4\sqrt{5}, 8.944)) \\ ans.5 = (u = 0.894\, i + 0.447\, j) \\ ans.6 = (c = 5.367\, i + 2.683\, j) \\ ans.7 = (d = -8.050\, i - 4.025\, j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < 5 , -4 , -4 >) \\ ans.2 = (AB = 5\, i - 4\, j - 4\, k) \\ ans.3 = (|AB| = (\sqrt{57}, 7.550)) \\ ans.4 = (u = 0.662\, i - 0.530\, j - 0.530\, k) \\ ans.5 = (c = 5.960\, i - 4.768\, j - 4.768\, k) \\ ans.6 = (d = -3.311\, i + 2.649\, j + 2.649\, k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -11 , 8 , 16 >) \\ ans.2 = (AB = -11\, i + 8\, j + 16\, k) \\ ans.3 = (|AB| = (21, 21.000)) \\ ans.4 = (u = -0.524\, i + 0.381\, j + 0.762\, k) \\ ans.5 = (c = -4.714\, i + 3.429\, j + 6.857\, k) \\ ans.6 = (d = 3.667\, i - 2.667\, j - 5.333\, k) \end{bmatrix}$$

$$Ans5 = < -17 , 2 >, \quad , Ans6 = < -9 , 28 >, \quad , Ans7 = < 2 , 14 , -2 >, \quad , Ans8 = < -42 , 33 , 11 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{113}, 10.630]] \\ ans.2 = \begin{bmatrix} b = < 48 , -42 > \\ |b| = [6\sqrt{113}, 63.781] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < -32 , 28 > \\ |c| = [4\sqrt{113}, 42.521] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 18 , 1 > \\ |a| = [\sqrt{85}, 9.220] \\ |b| = [4\sqrt{13}, 14.422] \\ |a + b| = [5\sqrt{13}, 18.028] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < -6 , -15 > \\ |a| = [\sqrt{85}, 9.220] \\ |b| = [4\sqrt{13}, 14.422] \\ |a - b| = [3\sqrt{29}, 16.155] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < -1 , 0 , -2 > \\ |a| = [\sqrt{281}, 16.763] \\ |b| = [\sqrt{302}, 17.378] \\ |a + b| = [\sqrt{5}, 2.236] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < -19 , 20 , 20 > \\ |a| = [\sqrt{281}, 16.763] \\ |b| = [\sqrt{302}, 17.378] \\ |a - b| = [3\sqrt{129}, 34.073] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{61}, 7.810]) \\ ans.3 = (\theta = 39.806\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{61}, 7.810]) \\ ans.3 = (\theta = 129.806\ degrees) \end{bmatrix}$$

Vector01 Answers for No.10025

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -4 , -5 >) \\ ans.3 = (AB = -4\ i - 5\ j) \\ ans.4 = (|AB| = (\sqrt{41}, 6.403)) \\ ans.5 = (u = -0.625\ i - 0.781\ j) \\ ans.6 = (c = -3.123\ i - 3.904\ j) \\ ans.7 = (d = 4.998\ i + 6.247\ j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < -5 , -8 >) \\ ans.3 = (AB = -5\ i - 8\ j) \\ ans.4 = (|AB| = (\sqrt{89}, 9.434)) \\ ans.5 = (u = -0.530\ i - 0.848\ j) \\ ans.6 = (c = -4.770\ i - 7.632\ j) \\ ans.7 = (d = 4.240\ i + 6.784\ j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < -3 , -7 , -5 >) \\ ans.2 = (AB = -3\ i - 7\ j - 5\ k) \\ ans.3 = (|AB| = (\sqrt{83}, 9.110)) \\ ans.4 = (u = -0.329\ i - 0.768\ j - 0.549\ k) \\ ans.5 = (c = -1.646\ i - 3.842\ j - 2.744\ k) \\ ans.6 = (d = 2.305\ i + 5.378\ j + 3.842\ k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -16 , 6 , -8 >) \\ ans.2 = (AB = -16\ i + 6\ j - 8\ k) \\ ans.3 = (|AB| = (2\sqrt{89}, 18.868)) \\ ans.4 = (u = -0.848\ i + 0.318\ j - 0.424\ k) \\ ans.5 = (c = -6.784\ i + 2.544\ j - 3.392\ k) \\ ans.6 = (d = 4.240\ i - 1.590\ j + 2.120\ k) \end{bmatrix}$$

$$Ans5 = < 8 , 17 >, \quad , Ans6 = < 9 , 26 >, \quad , Ans7 = < 22 , 27 , 16 >, \quad , Ans8 = < -4 , -17 , 0 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [\,|a| = [10, 10.000]\,] \\ ans.2 = \begin{bmatrix} b = < 40 , -30 > \\ |b| = [50, 50.000] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < -48 , 36 > \\ |c| = [60, 60.000] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 19 , 5 > \\ |a| = [4\sqrt{13}, 14.422] \\ |b| = [\sqrt{170}, 13.038] \\ |a + b| = [\sqrt{386}, 19.647] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < -3 , 19 > \\ |a| = [4\sqrt{13}, 14.422] \\ |b| = [\sqrt{170}, 13.038] \\ |a - b| = [\sqrt{370}, 19.235] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < -3 , 1 , 17 > \\ |a| = [\sqrt{249}, 15.780] \\ |b| = [9\sqrt{2}, 12.728] \\ |a + b| = [\sqrt{299}, 17.292] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < -17 , -15 , 3 > \\ |a| = [\sqrt{249}, 15.780] \\ |b| = [9\sqrt{2}, 12.728] \\ |a - b| = [\sqrt{523}, 22.869] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 57.995\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{106}, 10.296]) \\ ans.3 = (\theta = 150.945\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.10057

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < 5 , -3 >) \\ ans.3 = (AB = 5\,i - 3\,j) \\ ans.4 = (|AB| = (\sqrt{34}, 5.831)) \\ ans.5 = (u = 0.857\,i - 0.514\,j) \\ ans.6 = (c = 6.002\,i - 3.601\,j) \\ ans.7 = (d = -7.717\,i + 4.630\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < 8 , 6 >) \\ ans.3 = (AB = 8\,i + 6\,j) \\ ans.4 = (|AB| = (10, 10.000)) \\ ans.5 = (u = 0.800\,i + 0.600\,j) \\ ans.6 = (c = 4.000\,i + 3.000\,j) \\ ans.7 = (d = -4.800\,i - 3.600\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < -3 , 5 , -3 >) \\ ans.2 = (AB = -3\,i + 5\,j - 3\,k) \\ ans.3 = (|AB| = (\sqrt{43}, 6.557)) \\ ans.4 = (u = -0.457\,i + 0.762\,j - 0.457\,k) \\ ans.5 = (c = -2.287\,i + 3.812\,j - 2.287\,k) \\ ans.6 = (d = 3.202\,i - 5.337\,j + 3.202\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < 4 , -6 , 19 >) \\ ans.2 = (AB = 4\,i - 6\,j + 19\,k) \\ ans.3 = (|AB| = (\sqrt{413}, 20.322)) \\ ans.4 = (u = 0.197\,i - 0.295\,j + 0.935\,k) \\ ans.5 = (c = 0.984\,i - 1.476\,j + 4.675\,k) \\ ans.6 = (d = -1.378\,i + 2.067\,j - 6.545\,k) \end{bmatrix}$$

$$Ans5 = < 13 , -38 >, \quad , Ans6 = < -19 , 8 >, \quad , Ans7 = < -21 , 32 , 9 >, \quad , Ans8 = < 48 , -21 , -10 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{113}, 10.630]] \\ ans.2 = \begin{bmatrix} b = < -56 , 49 > \\ |b| = [7\sqrt{113}, 74.411] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < 32 , -28 > \\ |c| = [4\sqrt{113}, 42.521] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 2 , 15 > \\ |a| = [\sqrt{185}, 13.601] \\ |b| = [\sqrt{130}, 11.402] \\ |a + b| = [\sqrt{229}, 15.133] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < 20 , 1 > \\ |a| = [\sqrt{185}, 13.601] \\ |b| = [\sqrt{130}, 11.402] \\ |a - b| = [\sqrt{401}, 20.025] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < 4 , 3 , 7 > \\ |a| = [\sqrt{131}, 11.446] \\ |b| = [3\sqrt{29}, 16.155] \\ |a + b| = [\sqrt{74}, 8.602] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < -14 , 15 , -17 > \\ |a| = [\sqrt{131}, 11.446] \\ |b| = [3\sqrt{29}, 16.155] \\ |a - b| = [\sqrt{710}, 26.646] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{74}, 8.602]) \\ ans.3 = (\theta = 54.462\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 147.995\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.10061

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < 4 , 8 >) \\ ans.3 = (AB = 4\,i + 8\,j) \\ ans.4 = (|AB| = (4\sqrt{5}, 8.944)) \\ ans.5 = (u = 0.447\,i + 0.894\,j) \\ ans.6 = (c = 2.236\,i + 4.472\,j) \\ ans.7 = (d = -2.683\,i - 5.367\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < -7 , -9 >) \\ ans.3 = (AB = -7\,i - 9\,j) \\ ans.4 = (|AB| = (\sqrt{130}, 11.402)) \\ ans.5 = (u = -0.614\,i - 0.789\,j) \\ ans.6 = (c = -4.912\,i - 6.315\,j) \\ ans.7 = (d = 3.070\,i + 3.947\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < 3 , 4 , 9 >) \\ ans.2 = (AB = 3\,i + 4\,j + 9\,k) \\ ans.3 = (|AB| = (\sqrt{106}, 10.296)) \\ ans.4 = (u = 0.291\,i + 0.389\,j + 0.874\,k) \\ ans.5 = (c = 1.457\,i + 1.943\,j + 4.371\,k) \\ ans.6 = (d = -2.622\,i - 3.497\,j - 7.867\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < 8 , 9 , 10 >) \\ ans.2 = (AB = 8\,i + 9\,j + 10\,k) \\ ans.3 = (|AB| = (7\sqrt{5}, 15.652)) \\ ans.4 = (u = 0.511\,i + 0.575\,j + 0.639\,k) \\ ans.5 = (c = 2.556\,i + 2.875\,j + 3.194\,k) \\ ans.6 = (d = -4.600\,i - 5.175\,j - 5.750\,k) \end{bmatrix}$$

$$Ans5 = < -14 , -25 >, \quad , Ans6 = < 15 , -19 >, \quad , Ans7 = < -15 , -4 , -15 >, \quad , Ans8 = < -32 , -18 , -45 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{74}, 8.602]] \\ ans.2 = \begin{bmatrix} b = < 28 , -20 > \\ |b| = [4\sqrt{74}, 34.409] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < -21 , 15 > \\ |c| = [3\sqrt{74}, 25.807] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < -5 , 18 > \\ |a| = [\sqrt{149}, 12.207] \\ |b| = [4\sqrt{13}, 14.422] \\ |a + b| = [\sqrt{349}, 18.682] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < 19 , 2 > \\ |a| = [\sqrt{149}, 12.207] \\ |b| = [4\sqrt{13}, 14.422] \\ |a - b| = [\sqrt{365}, 19.105] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < -4 , -15 , 20 > \\ |a| = [3\sqrt{30}, 16.432] \\ |b| = [\sqrt{227}, 15.067] \\ |a + b| = [\sqrt{641}, 25.318] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < 18 , -5 , 2 > \\ |a| = [3\sqrt{30}, 16.432] \\ |b| = [\sqrt{227}, 15.067] \\ |a - b| = [\sqrt{353}, 18.788] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 57.995 \text{ degrees}) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{145}, 12.042]) \\ ans.3 = (\theta = 138.366 \text{ degrees}) \end{bmatrix}$$

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Vector01 Answers for No.10071

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <-10, 6>) \\ ans.3 = (AB = -10\,i + 6\,j) \\ ans.4 = (|AB| = (2\sqrt{34}, 11.662)) \\ ans.5 = (u = -0.857\,i + 0.514\,j) \\ ans.6 = (c = -5.145\,i + 3.087\,j) \\ ans.7 = (d = 6.002\,i - 3.601\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <3, 14>) \\ ans.3 = (AB = 3\,i + 14\,j) \\ ans.4 = (|AB| = (\sqrt{205}, 14.318)) \\ ans.5 = (u = 0.210\,i + 0.978\,j) \\ ans.6 = (c = 1.886\,i + 8.800\,j) \\ ans.7 = (d = -1.257\,i - 5.867\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <-3, 3, -5>) \\ ans.2 = (AB = -3\,i + 3\,j - 5\,k) \\ ans.3 = (|AB| = (\sqrt{43}, 6.557)) \\ ans.4 = (u = -0.457\,i + 0.457\,j - 0.762\,k) \\ ans.5 = (c = -3.660\,i + 3.660\,j - 6.100\,k) \\ ans.6 = (d = 2.287\,i - 2.287\,j + 3.812\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <-4, -9, 6>) \\ ans.2 = (AB = -4\,i - 9\,j + 6\,k) \\ ans.3 = (|AB| = (\sqrt{133}, 11.533)) \\ ans.4 = (u = -0.347\,i - 0.780\,j + 0.520\,k) \\ ans.5 = (c = -2.775\,i - 6.243\,j + 4.162\,k) \\ ans.6 = (d = 3.122\,i + 7.024\,j - 4.682\,k) \end{bmatrix}$$

$$Ans5 = <-4, 3>, \quad , Ans6 = <20, -27>, \quad , Ans7 = <26, -10, -17>, \quad , Ans8 = <-6, 35, 27>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [10, 10.000]] \\ ans.2 = \begin{bmatrix} b = <48, -36> \\ |b| = [60, 60.000] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <-32, 24> \\ |c| = [40, 40.000] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <4, 16> \\ |a| = [13, 13.000] \\ |b| = [\sqrt{185}, 13.601] \\ |a + b| = [4\sqrt{17}, 16.492] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <20, -6> \\ |a| = [13, 13.000] \\ |b| = [\sqrt{185}, 13.601] \\ |a - b| = [2\sqrt{109}, 20.881] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <-13, -19, 17> \\ |a| = [\sqrt{110}, 10.488] \\ |b| = [\sqrt{337}, 18.358] \\ |a + b| = [3\sqrt{91}, 28.618] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <1, 5, -7> \\ |a| = [\sqrt{110}, 10.488] \\ |b| = [\sqrt{337}, 18.358] \\ |a - b| = [5\sqrt{3}, 8.660] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{61}, 7.810]) \\ ans.3 = (\theta = 39.806\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{106}, 10.296]) \\ ans.3 = (\theta = 150.945\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.10088

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -3 , 4 >) \\ ans.3 = (AB = -3\,i + 4\,j) \\ ans.4 = (|AB| = (5, 5.000)) \\ ans.5 = (u = -0.600\,i + 0.800\,j) \\ ans.6 = (c = -3.000\,i + 4.000\,j) \\ ans.7 = (d = 5.400\,i - 7.200\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < 7 , 7 >) \\ ans.3 = (AB = 7\,i + 7\,j) \\ ans.4 = (|AB| = (7\sqrt{2}, 9.899)) \\ ans.5 = (u = 0.707\,i + 0.707\,j) \\ ans.6 = (c = 3.536\,i + 3.536\,j) \\ ans.7 = (d = -4.950\,i - 4.950\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < -6 , 5 , -5 >) \\ ans.2 = (AB = -6\,i + 5\,j - 5\,k) \\ ans.3 = (|AB| = (\sqrt{86}, 9.274)) \\ ans.4 = (u = -0.647\,i + 0.539\,j - 0.539\,k) \\ ans.5 = (c = -3.882\,i + 3.235\,j - 3.235\,k) \\ ans.6 = (d = 5.176\,i - 4.313\,j + 4.313\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < 11 , -7 , 7 >) \\ ans.2 = (AB = 11\,i - 7\,j + 7\,k) \\ ans.3 = (|AB| = (\sqrt{219}, 14.799)) \\ ans.4 = (u = 0.743\,i - 0.473\,j + 0.473\,k) \\ ans.5 = (c = 3.717\,i - 2.365\,j + 2.365\,k) \\ ans.6 = (d = -5.946\,i + 3.784\,j - 3.784\,k) \end{bmatrix}$$

$$Ans5 = < 59 , -37 >, \quad , Ans6 = < -36 , -17 >, \quad , Ans7 = < -25 , -32 , 9 >, \quad , Ans8 = < 15 , 16 , -6 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{106}, 10.296]] \\ ans.2 = \begin{bmatrix} b = < -63 , -35 > \\ |b| = [7\sqrt{106}, 72.069] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < 27 , 15 > \\ |c| = [3\sqrt{106}, 30.887] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 18 , 6 > \\ |a| = [\sqrt{218}, 14.765] \\ |b| = [\sqrt{194}, 13.928] \\ |a + b| = [6\sqrt{10}, 18.974] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < 8 , -20 > \\ |a| = [\sqrt{218}, 14.765] \\ |b| = [\sqrt{194}, 13.928] \\ |a - b| = [4\sqrt{29}, 21.541] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < -1 , -6 , 1 > \\ |a| = [\sqrt{282}, 16.793] \\ |b| = [9\sqrt{2}, 12.728] \\ |a + b| = [\sqrt{38}, 6.164] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < 15 , -20 , 15 > \\ |a| = [\sqrt{282}, 16.793] \\ |b| = [9\sqrt{2}, 12.728] \\ |a - b| = [5\sqrt{34}, 29.155] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{145}, 12.042]) \\ ans.3 = (\theta = 48.366\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{61}, 7.810]) \\ ans.3 = (\theta = 320.194\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.10385

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <4, -3>) \\ ans.3 = (AB = 4\,i - 3\,j) \\ ans.4 = (|AB| = (5, 5.000)) \\ ans.5 = (u = 0.800\,i - 0.600\,j) \\ ans.6 = (c = 6.400\,i - 4.800\,j) \\ ans.7 = (d = -7.200\,i + 5.400\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <-4, 11>) \\ ans.3 = (AB = -4\,i + 11\,j) \\ ans.4 = (|AB| = (\sqrt{137}, 11.705)) \\ ans.5 = (u = -0.342\,i + 0.940\,j) \\ ans.6 = (c = -2.392\,i + 6.579\,j) \\ ans.7 = (d = 1.709\,i - 4.699\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <10, 3, -4>) \\ ans.2 = (AB = 10\,i + 3\,j - 4\,k) \\ ans.3 = (|AB| = (5\sqrt{5}, 11.180)) \\ ans.4 = (u = 0.894\,i + 0.268\,j - 0.358\,k) \\ ans.5 = (c = 7.155\,i + 2.147\,j - 2.862\,k) \\ ans.6 = (d = -8.050\,i - 2.415\,j + 3.220\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <-7, 8, -7>) \\ ans.2 = (AB = -7\,i + 8\,j - 7\,k) \\ ans.3 = (|AB| = (9\sqrt{2}, 12.728)) \\ ans.4 = (u = -0.550\,i + 0.629\,j - 0.550\,k) \\ ans.5 = (c = -3.850\,i + 4.400\,j - 3.850\,k) \\ ans.6 = (d = 3.300\,i - 3.771\,j + 3.300\,k) \end{bmatrix}$$

$$Ans5 = <-23, -14>, \quad , Ans6 = <9, 6>, \quad , Ans7 = <36, -4, -19>, \quad , Ans8 = <2, -20, 13>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{106}, 10.296]] \\ ans.2 = \begin{bmatrix} b = <-36, 20> \\ |b| = [4\sqrt{106}, 41.183] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <45, -25> \\ |c| = [5\sqrt{106}, 51.478] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <3, 19> \\ |a| = [6\sqrt{5}, 13.416] \\ |b| = [\sqrt{130}, 11.402] \\ |a + b| = [\sqrt{370}, 19.235] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <-15, 5> \\ |a| = [6\sqrt{5}, 13.416] \\ |b| = [\sqrt{130}, 11.402] \\ |a - b| = [5\sqrt{10}, 15.811] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <20, -5, -3> \\ |a| = [\sqrt{138}, 11.747] \\ |b| = [7\sqrt{6}, 17.146] \\ |a + b| = [\sqrt{434}, 20.833] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <-6, 15, -13> \\ |a| = [\sqrt{138}, 11.747] \\ |b| = [7\sqrt{6}, 17.146] \\ |a - b| = [\sqrt{430}, 20.736] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{130}, 11.402]) \\ ans.3 = (\theta = 37.875\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{113}, 10.630]) \\ ans.3 = (\theta = 138.814\ degrees) \end{bmatrix}$$

Vector01 Answers for No.10387

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <-3, -6>) \\ ans.3 = (AB = -3\,i - 6\,j) \\ ans.4 = (|AB| = (3\sqrt{5}, 6.708)) \\ ans.5 = (u = -0.447\,i - 0.894\,j) \\ ans.6 = (c = -4.025\,i - 8.050\,j) \\ ans.7 = (d = 3.578\,i + 7.155\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <3, 5>) \\ ans.3 = (AB = 3\,i + 5\,j) \\ ans.4 = (|AB| = (\sqrt{34}, 5.831)) \\ ans.5 = (u = 0.514\,i + 0.857\,j) \\ ans.6 = (c = 4.630\,i + 7.717\,j) \\ ans.7 = (d = -4.116\,i - 6.860\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <5, -7, -5>) \\ ans.2 = (AB = 5\,i - 7\,j - 5\,k) \\ ans.3 = (|AB| = (3\sqrt{11}, 9.950)) \\ ans.4 = (u = 0.503\,i - 0.704\,j - 0.503\,k) \\ ans.5 = (c = 3.015\,i - 4.221\,j - 3.015\,k) \\ ans.6 = (d = -3.518\,i + 4.925\,j + 3.518\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <-10, 5, -10>) \\ ans.2 = (AB = -10\,i + 5\,j - 10\,k) \\ ans.3 = (|AB| = (15, 15.000)) \\ ans.4 = (u = -0.667\,i + 0.333\,j - 0.667\,k) \\ ans.5 = (c = -6.000\,i + 3.000\,j - 6.000\,k) \\ ans.6 = (d = 3.333\,i - 1.667\,j + 3.333\,k) \end{bmatrix}$$

$$Ans5 = <9, 10>, \quad , Ans6 = <-25, 58>, \quad , Ans7 = <-34, 16, 17>, \quad , Ans8 = <66, -14, 11>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{61}, 7.810]] \\ ans.2 = \begin{bmatrix} b = <20, -24> \\ |b| = [4\sqrt{61}, 31.241] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <-15, 18> \\ |c| = [3\sqrt{61}, 23.431] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <6, 13> \\ |a| = [4\sqrt{13}, 14.422] \\ |b| = [\sqrt{61}, 7.810] \\ |a + b| = [\sqrt{205}, 14.318] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <18, 3> \\ |a| = [4\sqrt{13}, 14.422] \\ |b| = [\sqrt{61}, 7.810] \\ |a - b| = [3\sqrt{37}, 18.248] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <-19, 0, -6> \\ |a| = [\sqrt{134}, 11.576] \\ |b| = [\sqrt{337}, 18.358] \\ |a + b| = [\sqrt{397}, 19.925] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <5, 14, 18> \\ |a| = [\sqrt{134}, 11.576] \\ |b| = [\sqrt{337}, 18.358] \\ |a - b| = [\sqrt{545}, 23.345] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{130}, 11.402]) \\ ans.3 = (\theta = 52.125\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{113}, 10.630]) \\ ans.3 = (\theta = 311.186\ degrees) \end{bmatrix}$$

Vector01 Answers for No.10914

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <3, 5>) \\ ans.3 = (AB = 3\,i + 5\,j) \\ ans.4 = (|AB| = (\sqrt{34}, 5.831)) \\ ans.5 = (u = 0.514\,i + 0.857\,j) \\ ans.6 = (c = 4.116\,i + 6.860\,j) \\ ans.7 = (d = -3.087\,i - 5.145\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <11, -3>) \\ ans.3 = (AB = 11\,i - 3\,j) \\ ans.4 = (|AB| = (\sqrt{130}, 11.402)) \\ ans.5 = (u = 0.965\,i - 0.263\,j) \\ ans.6 = (c = 8.683\,i - 2.368\,j) \\ ans.7 = (d = -5.789\,i + 1.579\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <9, 3, -4>) \\ ans.2 = (AB = 9\,i + 3\,j - 4\,k) \\ ans.3 = (|AB| = (\sqrt{106}, 10.296)) \\ ans.4 = (u = 0.874\,i + 0.291\,j - 0.389\,k) \\ ans.5 = (c = 6.119\,i + 2.040\,j - 2.720\,k) \\ ans.6 = (d = -5.245\,i - 1.748\,j + 2.331\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <-14, -12, 8>) \\ ans.2 = (AB = -14\,i - 12\,j + 8\,k) \\ ans.3 = (|AB| = (2\sqrt{101}, 20.100)) \\ ans.4 = (u = -0.697\,i - 0.597\,j + 0.398\,k) \\ ans.5 = (c = -4.876\,i - 4.179\,j + 2.786\,k) \\ ans.6 = (d = 5.572\,i + 4.776\,j - 3.184\,k) \end{bmatrix}$$

$$Ans5 = <-32, 11>, \quad , Ans6 = <18, -24>, \quad , Ans7 = <9, -6, -10>, \quad , Ans8 = <24, -20, -28>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{145}, 12.042]] \\ ans.2 = \begin{bmatrix} b = <-40, 45> \\ |b| = [5\sqrt{145}, 60.208] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <32, -36> \\ |c| = [4\sqrt{145}, 48.166] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <-7, 17> \\ |a| = [\sqrt{194}, 13.928] \\ |b| = [6\sqrt{5}, 13.416] \\ |a + b| = [13\sqrt{2}, 18.385] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <-19, -7> \\ |a| = [\sqrt{194}, 13.928] \\ |b| = [6\sqrt{5}, 13.416] \\ |a - b| = [\sqrt{410}, 20.248] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <1, -6, 12> \\ |a| = [\sqrt{142}, 11.916] \\ |b| = [\sqrt{257}, 16.031] \\ |a + b| = [\sqrt{181}, 13.454] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <17, 18, -2> \\ |a| = [\sqrt{142}, 11.916] \\ |b| = [\sqrt{257}, 16.031] \\ |a - b| = [\sqrt{617}, 24.839] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{113}, 10.630]) \\ ans.3 = (\theta = 41.186\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{85}, 9.220]) \\ ans.3 = (\theta = 220.601\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.10945

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -7 , 7 >) \\ ans.3 = (AB = -7\, i + 7\, j) \\ ans.4 = (|AB| = (7\sqrt{2}, 9.899)) \\ ans.5 = (u = -0.707\, i + 0.707\, j) \\ ans.6 = (c = -4.950\, i + 4.950\, j) \\ ans.7 = (d = 5.657\, i - 5.657\, j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < 3 , -7 >) \\ ans.3 = (AB = 3\, i - 7\, j) \\ ans.4 = (|AB| = (\sqrt{58}, 7.616)) \\ ans.5 = (u = 0.394\, i - 0.919\, j) \\ ans.6 = (c = 3.151\, i - 7.353\, j) \\ ans.7 = (d = -2.364\, i + 5.515\, j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < 3 , -6 , -6 >) \\ ans.2 = (AB = 3\, i - 6\, j - 6\, k) \\ ans.3 = (|AB| = (9, 9.000)) \\ ans.4 = (u = 0.333\, i - 0.667\, j - 0.667\, k) \\ ans.5 = (c = 3.000\, i - 6.000\, j - 6.000\, k) \\ ans.6 = (d = -2.000\, i + 4.000\, j + 4.000\, k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -4 , 10 , -8 >) \\ ans.2 = (AB = -4\, i + 10\, j - 8\, k) \\ ans.3 = (|AB| = (6\sqrt{5}, 13.416)) \\ ans.4 = (u = -0.298\, i + 0.745\, j - 0.596\, k) \\ ans.5 = (c = -1.491\, i + 3.727\, j - 2.981\, k) \\ ans.6 = (d = 2.087\, i - 5.217\, j + 4.174\, k) \end{bmatrix}$$

$$Ans5 = < -3 , -5 >, \quad , Ans6 = < -11 , 20 >, \quad , Ans7 = < -26 , -22 , 22 >, \quad , Ans8 = < 27 , 55 , -34 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{61}, 7.810]] \\ ans.2 = \begin{bmatrix} b = < -18 , -15 > \\ |b| = [3\sqrt{61}, 23.431] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < 42 , 35 > \\ |c| = [7\sqrt{61}, 54.672] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 15 , -1 > \\ |a| = [5\sqrt{5}, 11.180] \\ |b| = [\sqrt{61}, 7.810] \\ |a + b| = [\sqrt{226}, 15.033] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < 5 , 11 > \\ |a| = [5\sqrt{5}, 11.180] \\ |b| = [\sqrt{61}, 7.810] \\ |a - b| = [\sqrt{146}, 12.083] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < 1 , -3 , -3 > \\ |a| = [3\sqrt{22}, 14.071] \\ |b| = [\sqrt{213}, 14.595] \\ |a + b| = [\sqrt{19}, 4.359] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < -15 , 17 , -17 > \\ |a| = [3\sqrt{22}, 14.071] \\ |b| = [\sqrt{213}, 14.595] \\ |a - b| = [\sqrt{803}, 28.337] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{106}, 10.296]) \\ ans.3 = (\theta = 60.945\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{74}, 8.602]) \\ ans.3 = (\theta = 234.462\ degrees) \end{bmatrix}$$

Vector01 Answers for No.10954

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < 3 , -3 >) \\ ans.3 = (AB = 3\,i - 3\,j) \\ ans.4 = (|AB| = (3\sqrt{2}, 4.243)) \\ ans.5 = (u = 0.707\,i - 0.707\,j) \\ ans.6 = (c = 5.657\,i - 5.657\,j) \\ ans.7 = (d = -6.364\,i + 6.364\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < -3 , 10 >) \\ ans.3 = (AB = -3\,i + 10\,j) \\ ans.4 = (|AB| = (\sqrt{109}, 10.440)) \\ ans.5 = (u = -0.287\,i + 0.958\,j) \\ ans.6 = (c = -2.299\,i + 7.663\,j) \\ ans.7 = (d = 2.011\,i - 6.705\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < -4 , 3 , -5 >) \\ ans.2 = (AB = -4\,i + 3\,j - 5\,k) \\ ans.3 = (|AB| = (5\sqrt{2}, 7.071)) \\ ans.4 = (u = -0.566\,i + 0.424\,j - 0.707\,k) \\ ans.5 = (c = -3.394\,i + 2.546\,j - 4.243\,k) \\ ans.6 = (d = 4.525\,i - 3.394\,j + 5.657\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -12 , -4 , -4 >) \\ ans.2 = (AB = -12\,i - 4\,j - 4\,k) \\ ans.3 = (|AB| = (4\sqrt{11}, 13.266)) \\ ans.4 = (u = -0.905\,i - 0.302\,j - 0.302\,k) \\ ans.5 = (c = -7.236\,i - 2.412\,j - 2.412\,k) \\ ans.6 = (d = 6.332\,i + 2.111\,j + 2.111\,k) \end{bmatrix}$$

$$Ans5 = < -36 , -7 >, \quad , Ans6 = < 18 , -14 >, \quad , Ans7 = < 12 , 17 , -3 >, \quad , Ans8 = < -29 , 23 , 14 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{74}, 8.602]] \\ ans.2 = \begin{bmatrix} b = < -35 , -25 > \\ |b| = [5\sqrt{74}, 43.012] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < 42 , 30 > \\ |c| = [6\sqrt{74}, 51.614] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 18 , -3 > \\ |a| = [\sqrt{74}, 8.602] \\ |b| = [\sqrt{269}, 16.401] \\ |a + b| = [3\sqrt{37}, 18.248] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < -8 , 17 > \\ |a| = [\sqrt{74}, 8.602] \\ |b| = [\sqrt{269}, 16.401] \\ |a - b| = [\sqrt{353}, 18.788] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < -7 , 2 , 3 > \\ |a| = [5\sqrt{14}, 18.708] \\ |b| = [\sqrt{206}, 14.353] \\ |a + b| = [\sqrt{62}, 7.874] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < -19 , -20 , 17 > \\ |a| = [5\sqrt{14}, 18.708] \\ |b| = [\sqrt{206}, 14.353] \\ |a - b| = [5\sqrt{42}, 32.404] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 32.005\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 122.005\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.10966

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -5 , -7 >) \\ ans.3 = (AB = -5\,i - 7\,j) \\ ans.4 = (|AB| = (\sqrt{74}, 8.602)) \\ ans.5 = (u = -0.581\,i - 0.814\,j) \\ ans.6 = (c = -4.650\,i - 6.510\,j) \\ ans.7 = (d = 5.231\,i + 7.324\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < -10 , -3 >) \\ ans.3 = (AB = -10\,i - 3\,j) \\ ans.4 = (|AB| = (\sqrt{109}, 10.440)) \\ ans.5 = (u = -0.958\,i - 0.287\,j) \\ ans.6 = (c = -4.789\,i - 1.437\,j) \\ ans.7 = (d = 7.663\,i + 2.299\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < -7 , -4 , -5 >) \\ ans.2 = (AB = -7\,i - 4\,j - 5\,k) \\ ans.3 = (|AB| = (3\sqrt{10}, 9.487)) \\ ans.4 = (u = -0.738\,i - 0.422\,j - 0.527\,k) \\ ans.5 = (c = -5.165\,i - 2.951\,j - 3.689\,k) \\ ans.6 = (d = 6.641\,i + 3.795\,j + 4.743\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -4 , 7 , 14 >) \\ ans.2 = (AB = -4\,i + 7\,j + 14\,k) \\ ans.3 = (|AB| = (3\sqrt{29}, 16.155)) \\ ans.4 = (u = -0.248\,i + 0.433\,j + 0.867\,k) \\ ans.5 = (c = -1.733\,i + 3.033\,j + 6.066\,k) \\ ans.6 = (d = 2.228\,i - 3.900\,j - 7.799\,k) \end{bmatrix}$$

$$Ans5 = < -15 , 25 >, \quad , Ans6 = < -7 , -13 >, \quad , Ans7 = < -40 , 12 , 3 >, \quad , Ans8 = < 17 , -9 , 23 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [10, 10.000]] \\ ans.2 = \begin{bmatrix} b = < 36 , 48 > \\ |b| = [60, 60.000] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < -30 , -40 > \\ |c| = [50, 50.000] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 19 , 5 > \\ |a| = [\sqrt{193}, 13.892] \\ |b| = [\sqrt{193}, 13.892] \\ |a + b| = [\sqrt{386}, 19.647] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < 5 , -19 > \\ |a| = [\sqrt{193}, 13.892] \\ |b| = [\sqrt{193}, 13.892] \\ |a - b| = [\sqrt{386}, 19.647] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < 0 , 7 , -18 > \\ |a| = [3\sqrt{21}, 13.748] \\ |b| = [4\sqrt{17}, 16.492] \\ |a + b| = [\sqrt{373}, 19.313] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < 16 , -17 , -2 > \\ |a| = [3\sqrt{21}, 13.748] \\ |b| = [4\sqrt{17}, 16.492] \\ |a - b| = [3\sqrt{61}, 23.431] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{106}, 10.296]) \\ ans.3 = (\theta = 60.945\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 302.005\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.11154

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <-5, -3>) \\ ans.3 = (AB = -5\,i - 3\,j) \\ ans.4 = (|AB| = (\sqrt{34}, 5.831)) \\ ans.5 = (u = -0.857\,i - 0.514\,j) \\ ans.6 = (c = -5.145\,i - 3.087\,j) \\ ans.7 = (d = 7.717\,i + 4.630\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <-5, 11>) \\ ans.3 = (AB = -5\,i + 11\,j) \\ ans.4 = (|AB| = (\sqrt{146}, 12.083)) \\ ans.5 = (u = -0.414\,i + 0.910\,j) \\ ans.6 = (c = -3.310\,i + 7.283\,j) \\ ans.7 = (d = 3.724\,i - 8.193\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <-3, -7, -5>) \\ ans.2 = (AB = -3\,i - 7\,j - 5\,k) \\ ans.3 = (|AB| = (\sqrt{83}, 9.110)) \\ ans.4 = (u = -0.329\,i - 0.768\,j - 0.549\,k) \\ ans.5 = (c = -1.976\,i - 4.610\,j - 3.293\,k) \\ ans.6 = (d = 2.634\,i + 6.147\,j + 4.391\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <-3, 11, -6>) \\ ans.2 = (AB = -3\,i + 11\,j - 6\,k) \\ ans.3 = (|AB| = (\sqrt{166}, 12.884)) \\ ans.4 = (u = -0.233\,i + 0.854\,j - 0.466\,k) \\ ans.5 = (c = -2.096\,i + 7.684\,j - 4.191\,k) \\ ans.6 = (d = 1.630\,i - 5.976\,j + 3.260\,k) \end{bmatrix}$$

$$Ans5 = <32, 20>, \quad , Ans6 = <-1, 20>, \quad , Ans7 = <25, -8, -24>, \quad , Ans8 = <-50, -35, -28>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{74}, 8.602]] \\ ans.2 = \begin{bmatrix} b = <20, -28> \\ |b| = [4\sqrt{74}, 34.409] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <-15, 21> \\ |c| = [3\sqrt{74}, 25.807] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <17, -3> \\ |a| = [\sqrt{265}, 16.279] \\ |b| = [\sqrt{89}, 9.434] \\ |a + b| = [\sqrt{298}, 17.263] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <7, -19> \\ |a| = [\sqrt{265}, 16.279] \\ |b| = [\sqrt{89}, 9.434] \\ |a - b| = [\sqrt{410}, 20.248] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <16, 4, -3> \\ |a| = [\sqrt{262}, 16.186] \\ |b| = [\sqrt{97}, 9.849] \\ |a + b| = [\sqrt{281}, 16.763] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <4, 14, -15> \\ |a| = [\sqrt{262}, 16.186] \\ |b| = [\sqrt{97}, 9.849] \\ |a - b| = [\sqrt{437}, 20.905] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{61}, 7.810]) \\ ans.3 = (\theta = 39.806\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{113}, 10.630]) \\ ans.3 = (\theta = 228.814\ degrees) \end{bmatrix}$$

Vector01 Answers for No.11191

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <7, 5>) \\ ans.3 = (AB = 7\,i + 5\,j) \\ ans.4 = (|AB| = (\sqrt{74}, 8.602)) \\ ans.5 = (u = 0.814\,i + 0.581\,j) \\ ans.6 = (c = 4.882\,i + 3.487\,j) \\ ans.7 = (d = -6.510\,i - 4.650\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <4, -15>) \\ ans.3 = (AB = 4\,i - 15\,j) \\ ans.4 = (|AB| = (\sqrt{241}, 15.524)) \\ ans.5 = (u = 0.258\,i - 0.966\,j) \\ ans.6 = (c = 2.061\,i - 7.730\,j) \\ ans.7 = (d = -2.319\,i + 8.696\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <3, -3, -5>) \\ ans.2 = (AB = 3\,i - 3\,j - 5\,k) \\ ans.3 = (|AB| = (\sqrt{43}, 6.557)) \\ ans.4 = (u = 0.457\,i - 0.457\,j - 0.762\,k) \\ ans.5 = (c = 2.287\,i - 2.287\,j - 3.812\,k) \\ ans.6 = (d = -2.745\,i + 2.745\,j + 4.575\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <-9, -4, -12>) \\ ans.2 = (AB = -9\,i - 4\,j - 12\,k) \\ ans.3 = (|AB| = (\sqrt{241}, 15.524)) \\ ans.4 = (u = -0.580\,i - 0.258\,j - 0.773\,k) \\ ans.5 = (c = -4.638\,i - 2.061\,j - 6.184\,k) \\ ans.6 = (d = 4.058\,i + 1.804\,j + 5.411\,k) \end{bmatrix}$$

$$Ans5 = <-20, -16>, \quad , Ans6 = <37, 1>, \quad , Ans7 = <13, 20, -30>, \quad , Ans8 = <-17, -30, -2>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{74}, 8.602]] \\ ans.2 = \begin{bmatrix} b = <-21, 15> \\ |b| = [3\sqrt{74}, 25.807] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <28, -20> \\ |c| = [4\sqrt{74}, 34.409] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <19, -3> \\ |a| = [\sqrt{233}, 15.264] \\ |b| = [\sqrt{157}, 12.530] \\ |a + b| = [\sqrt{370}, 19.235] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <7, 19> \\ |a| = [\sqrt{233}, 15.264] \\ |b| = [\sqrt{157}, 12.530] \\ |a - b| = [\sqrt{410}, 20.248] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <-3, -17, 5> \\ |a| = [3\sqrt{19}, 13.077] \\ |b| = [10\sqrt{2}, 14.142] \\ |a + b| = [\sqrt{323}, 17.972] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <13, -5, -15> \\ |a| = [3\sqrt{19}, 13.077] \\ |b| = [10\sqrt{2}, 14.142] \\ |a - b| = [\sqrt{419}, 20.469] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{145}, 12.042]) \\ ans.3 = (\theta = 48.366\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{61}, 7.810]) \\ ans.3 = (\theta = 309.806\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.11309

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -6 , -3 >) \\ ans.3 = (AB = -6\,i - 3\,j) \\ ans.4 = (|AB| = (3\sqrt{5}, 6.708)) \\ ans.5 = (u = -0.894\,i - 0.447\,j) \\ ans.6 = (c = -6.261\,i - 3.130\,j) \\ ans.7 = (d = 5.367\,i + 2.683\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < 3 , 8 >) \\ ans.3 = (AB = 3\,i + 8\,j) \\ ans.4 = (|AB| = (\sqrt{73}, 8.544)) \\ ans.5 = (u = 0.351\,i + 0.936\,j) \\ ans.6 = (c = 3.160\,i + 8.427\,j) \\ ans.7 = (d = -2.107\,i - 5.618\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < 3 , -4 , 4 >) \\ ans.2 = (AB = 3\,i - 4\,j + 4\,k) \\ ans.3 = (|AB| = (\sqrt{41}, 6.403)) \\ ans.4 = (u = 0.469\,i - 0.625\,j + 0.625\,k) \\ ans.5 = (c = 2.811\,i - 3.748\,j + 3.748\,k) \\ ans.6 = (d = -3.748\,i + 4.998\,j - 4.998\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -7 , 14 , 10 >) \\ ans.2 = (AB = -7\,i + 14\,j + 10\,k) \\ ans.3 = (|AB| = (\sqrt{345}, 18.574)) \\ ans.4 = (u = -0.377\,i + 0.754\,j + 0.538\,k) \\ ans.5 = (c = -3.392\,i + 6.784\,j + 4.845\,k) \\ ans.6 = (d = 2.638\,i - 5.276\,j - 3.769\,k) \end{bmatrix}$$

$$Ans5 = < -39 , -16 >, \quad , Ans6 = < -26 , 17 >, \quad , Ans7 = < 30 , -19 , 2 >, \quad , Ans8 = < -25 , -16 , 15 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{74}, 8.602]] \\ ans.2 = \begin{bmatrix} b = < 20 , -28 > \\ |b| = [4\sqrt{74}, 34.409] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < -15 , 21 > \\ |c| = [3\sqrt{74}, 25.807] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 18 , -8 > \\ |a| = [\sqrt{313}, 17.692] \\ |b| = [\sqrt{61}, 7.810] \\ |a + b| = [2\sqrt{97}, 19.698] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < 6 , -18 > \\ |a| = [\sqrt{313}, 17.692] \\ |b| = [\sqrt{61}, 7.810] \\ |a - b| = [6\sqrt{10}, 18.974] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < -12 , -11 , 19 > \\ |a| = [\sqrt{142}, 11.916] \\ |b| = [\sqrt{174}, 13.191] \\ |a + b| = [\sqrt{626}, 25.020] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < 2 , -1 , -1 > \\ |a| = [\sqrt{142}, 11.916] \\ |b| = [\sqrt{174}, 13.191] \\ |a - b| = [\sqrt{6}, 2.449] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{145}, 12.042]) \\ ans.3 = (\theta = 41.634\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 212.005\ degrees) \end{bmatrix}$$

Vector01 Answers for No.12483

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <-6, 5>) \\ ans.3 = (AB = -6\,i + 5\,j) \\ ans.4 = (|AB| = (\sqrt{61}, 7.810)) \\ ans.5 = (u = -0.768\,i + 0.640\,j) \\ ans.6 = (c = -4.609\,i + 3.841\,j) \\ ans.7 = (d = 6.914\,i - 5.762\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <10, 4>) \\ ans.3 = (AB = 10\,i + 4\,j) \\ ans.4 = (|AB| = (2\sqrt{29}, 10.770)) \\ ans.5 = (u = 0.928\,i + 0.371\,j) \\ ans.6 = (c = 6.499\,i + 2.600\,j) \\ ans.7 = (d = -4.642\,i - 1.857\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <5, -4, 9>) \\ ans.2 = (AB = 5\,i - 4\,j + 9\,k) \\ ans.3 = (|AB| = (\sqrt{122}, 11.045)) \\ ans.4 = (u = 0.453\,i - 0.362\,j + 0.815\,k) \\ ans.5 = (c = 2.263\,i - 1.811\,j + 4.074\,k) \\ ans.6 = (d = -2.716\,i + 2.173\,j - 4.889\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <3, 3, -7>) \\ ans.2 = (AB = 3\,i + 3\,j - 7\,k) \\ ans.3 = (|AB| = (\sqrt{67}, 8.185)) \\ ans.4 = (u = 0.367\,i + 0.367\,j - 0.855\,k) \\ ans.5 = (c = 2.566\,i + 2.566\,j - 5.986\,k) \\ ans.6 = (d = -1.833\,i - 1.833\,j + 4.276\,k) \end{bmatrix}$$

$$Ans5 = <-7, -36>, \quad , Ans6 = <13, -20>, \quad , Ans7 = <-59, -32, 5>, \quad , Ans8 = <2, 31, -1>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{85}, 9.220]] \\ ans.2 = \begin{bmatrix} b = <-28, -24> \\ |b| = [4\sqrt{85}, 36.878] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <42, 36> \\ |c| = [6\sqrt{85}, 55.317] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <16, 4> \\ |a| = [2\sqrt{34}, 11.662] \\ |b| = [2\sqrt{34}, 11.662] \\ |a + b| = [4\sqrt{17}, 16.492] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <4, -16> \\ |a| = [2\sqrt{34}, 11.662] \\ |b| = [2\sqrt{34}, 11.662] \\ |a - b| = [4\sqrt{17}, 16.492] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <-3, -2, -6> \\ |a| = [\sqrt{110}, 10.488] \\ |b| = [\sqrt{293}, 17.117] \\ |a + b| = [7, 7.000] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <17, 12, 18> \\ |a| = [\sqrt{110}, 10.488] \\ |b| = [\sqrt{293}, 17.117] \\ |a - b| = [\sqrt{757}, 27.514] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{130}, 11.402]) \\ ans.3 = (\theta = 52.125\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{61}, 7.810]) \\ ans.3 = (\theta = 230.194\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.12557

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < 3 , -9 >) \\ ans.3 = (AB = 3\,i - 9\,j) \\ ans.4 = (|AB| = (3\sqrt{10}, 9.487)) \\ ans.5 = (u = 0.316\,i - 0.949\,j) \\ ans.6 = (c = 2.214\,i - 6.641\,j) \\ ans.7 = (d = -2.530\,i + 7.589\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < -13 , 5 >) \\ ans.3 = (AB = -13\,i + 5\,j) \\ ans.4 = (|AB| = (\sqrt{194}, 13.928)) \\ ans.5 = (u = -0.933\,i + 0.359\,j) \\ ans.6 = (c = -4.667\,i + 1.795\,j) \\ ans.7 = (d = 5.600\,i - 2.154\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < 7 , 3 , -3 >) \\ ans.2 = (AB = 7\,i + 3\,j - 3\,k) \\ ans.3 = (|AB| = (\sqrt{67}, 8.185)) \\ ans.4 = (u = 0.855\,i + 0.367\,j - 0.367\,k) \\ ans.5 = (c = 5.986\,i + 2.566\,j - 2.566\,k) \\ ans.6 = (d = -4.276\,i - 1.833\,j + 1.833\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -6 , -13 , 10 >) \\ ans.2 = (AB = -6\,i - 13\,j + 10\,k) \\ ans.3 = (|AB| = (\sqrt{305}, 17.464)) \\ ans.4 = (u = -0.344\,i - 0.744\,j + 0.573\,k) \\ ans.5 = (c = -3.092\,i - 6.699\,j + 5.153\,k) \\ ans.6 = (d = 1.718\,i + 3.722\,j - 2.863\,k) \end{bmatrix}$$

$$Ans5 = < -11 , -13 >, \quad , Ans6 = < 55 , -32 >, \quad , Ans7 = < -18 , 19 , 22 >, \quad , Ans8 = < -8 , -5 , -19 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{130}, 11.402]] \\ ans.2 = \begin{bmatrix} b = < 21 , 27 > \\ |b| = [3\sqrt{130}, 34.205] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < -42 , -54 > \\ |c| = [6\sqrt{130}, 68.411] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 4 , 16 > \\ |a| = [2\sqrt{34}, 11.662] \\ |b| = [2\sqrt{34}, 11.662] \\ |a + b| = [4\sqrt{17}, 16.492] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < 16 , -4 > \\ |a| = [2\sqrt{34}, 11.662] \\ |b| = [2\sqrt{34}, 11.662] \\ |a - b| = [4\sqrt{17}, 16.492] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < 2 , -19 , -2 > \\ |a| = [2\sqrt{77}, 17.550] \\ |b| = [\sqrt{149}, 12.207] \\ |a + b| = [3\sqrt{41}, 19.209] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < 18 , -5 , -14 > \\ |a| = [2\sqrt{77}, 17.550] \\ |b| = [\sqrt{149}, 12.207] \\ |a - b| = [\sqrt{545}, 23.345] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 57.995\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{130}, 11.402]) \\ ans.3 = (\theta = 142.125\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.12637

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <5, -4>) \\ ans.3 = (AB = 5\,i - 4\,j) \\ ans.4 = (|AB| = (\sqrt{41}, 6.403)) \\ ans.5 = (u = 0.781\,i - 0.625\,j) \\ ans.6 = (c = 7.028\,i - 5.622\,j) \\ ans.7 = (d = -4.685\,i + 3.748\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <5, -6>) \\ ans.3 = (AB = 5\,i - 6\,j) \\ ans.4 = (|AB| = (\sqrt{61}, 7.810)) \\ ans.5 = (u = 0.640\,i - 0.768\,j) \\ ans.6 = (c = 5.762\,i - 6.914\,j) \\ ans.7 = (d = -4.481\,i + 5.378\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <4, -8, 3>) \\ ans.2 = (AB = 4\,i - 8\,j + 3\,k) \\ ans.3 = (|AB| = (\sqrt{89}, 9.434)) \\ ans.4 = (u = 0.424\,i - 0.848\,j + 0.318\,k) \\ ans.5 = (c = 3.816\,i - 7.632\,j + 2.862\,k) \\ ans.6 = (d = -2.968\,i + 5.936\,j - 2.226\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <7, 7, 11>) \\ ans.2 = (AB = 7\,i + 7\,j + 11\,k) \\ ans.3 = (|AB| = (\sqrt{219}, 14.799)) \\ ans.4 = (u = 0.473\,i + 0.473\,j + 0.743\,k) \\ ans.5 = (c = 3.311\,i + 3.311\,j + 5.203\,k) \\ ans.6 = (d = -3.784\,i - 3.784\,j - 5.946\,k) \end{bmatrix}$$

$$Ans5 = <-44, 6>, \quad , Ans6 = <-1, 6>, \quad , Ans7 = <30, 6, -32>, \quad , Ans8 = <-18, -34, 1>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{74}, 8.602]] \\ ans.2 = \begin{bmatrix} b = <-35, 25> \\ |b| = [5\sqrt{74}, 43.012] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <28, -20> \\ |c| = [4\sqrt{74}, 34.409] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <16, -1> \\ |a| = [\sqrt{181}, 13.454] \\ |b| = [2\sqrt{34}, 11.662] \\ |a + b| = [\sqrt{257}, 16.031] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <4, 19> \\ |a| = [\sqrt{181}, 13.454] \\ |b| = [2\sqrt{34}, 11.662] \\ |a - b| = [\sqrt{377}, 19.416] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <-2, 16, -20> \\ |a| = [\sqrt{386}, 19.647] \\ |b| = [\sqrt{170}, 13.038] \\ |a + b| = [2\sqrt{165}, 25.690] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <-20, 6, -4> \\ |a| = [\sqrt{386}, 19.647] \\ |b| = [\sqrt{170}, 13.038] \\ |a - b| = [2\sqrt{113}, 21.260] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{74}, 8.602]) \\ ans.3 = (\theta = 54.462\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{113}, 10.630]) \\ ans.3 = (\theta = 131.186\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.12689

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <-3, -5>) \\ ans.3 = (AB = -3\,i - 5\,j) \\ ans.4 = (|AB| = (\sqrt{34}, 5.831)) \\ ans.5 = (u = -0.514\,i - 0.857\,j) \\ ans.6 = (c = -3.601\,i - 6.002\,j) \\ ans.7 = (d = 3.087\,i + 5.145\,j) \end{bmatrix}, \quad Ans2 = \begin{bmatrix} ans.2 = (AB = <10, 5>) \\ ans.3 = (AB = 10\,i + 5\,j) \\ ans.4 = (|AB| = (5\sqrt{5}, 11.180)) \\ ans.5 = (u = 0.894\,i + 0.447\,j) \\ ans.6 = (c = 4.472\,i + 2.236\,j) \\ ans.7 = (d = -5.367\,i - 2.683\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <-6, 4, -8>) \\ ans.2 = (AB = -6\,i + 4\,j - 8\,k) \\ ans.3 = (|AB| = (2\sqrt{29}, 10.770)) \\ ans.4 = (u = -0.557\,i + 0.371\,j - 0.743\,k) \\ ans.5 = (c = -2.785\,i + 1.857\,j - 3.714\,k) \\ ans.6 = (d = 4.457\,i - 2.971\,j + 5.942\,k) \end{bmatrix}, \quad Ans4 = \begin{bmatrix} ans.1 = (AB = <-3, -8, 10>) \\ ans.2 = (AB = -3\,i - 8\,j + 10\,k) \\ ans.3 = (|AB| = (\sqrt{173}, 13.153)) \\ ans.4 = (u = -0.228\,i - 0.608\,j + 0.760\,k) \\ ans.5 = (c = -1.597\,i - 4.258\,j + 5.322\,k) \\ ans.6 = (d = 1.140\,i + 3.041\,j - 3.801\,k) \end{bmatrix}$$

$$Ans5 = <14, 24>, \quad Ans6 = <24, 5>, \quad Ans7 = <26, 17, -24>, \quad Ans8 = <8, 23, 12>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{85}, 9.220]] \\ ans.2 = \begin{bmatrix} b = <18, 21> \\ |b| = [3\sqrt{85}, 27.659] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <-30, -35> \\ |c| = [5\sqrt{85}, 46.098] \end{bmatrix} \end{bmatrix}, \quad Ans10 = \begin{bmatrix} a + b = <5, 19> \\ |a| = [\sqrt{205}, 14.318] \\ |b| = [\sqrt{157}, 12.530] \\ |a + b| = [\sqrt{386}, 19.647] \end{bmatrix}, \quad Ans11 = \begin{bmatrix} a - b = <-17, 7> \\ |a| = [\sqrt{205}, 14.318] \\ |b| = [\sqrt{157}, 12.530] \\ |a - b| = [13\sqrt{2}, 18.385] \end{bmatrix}, \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <-13, -3, 15> \\ |a| = [7\sqrt{5}, 15.652] \\ |b| = [\sqrt{110}, 10.488] \\ |a + b| = [\sqrt{403}, 20.075] \end{bmatrix}, \quad Ans13 = \begin{bmatrix} a - b = <-3, -17, 3> \\ |a| = [7\sqrt{5}, 15.652] \\ |b| = [\sqrt{110}, 10.488] \\ |a - b| = [\sqrt{307}, 17.521] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{130}, 11.402]) \\ ans.3 = (\theta = 52.125\ degrees) \end{bmatrix}, \quad Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{85}, 9.220]) \\ ans.3 = (\theta = 319.399\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.13349

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -10\ ,\ -5 >) \\ ans.3 = (AB = -10\ i - 5\ j) \\ ans.4 = (|AB| = (5\sqrt{5},\ 11.180)) \\ ans.5 = (u = -0.894\ i - 0.447\ j) \\ ans.6 = (c = -8.050\ i - 4.025\ j) \\ ans.7 = (d = 7.155\ i + 3.578\ j) \end{bmatrix},\quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < -14\ ,\ -3 >) \\ ans.3 = (AB = -14\ i - 3\ j) \\ ans.4 = (|AB| = (\sqrt{205},\ 14.318)) \\ ans.5 = (u = -0.978\ i - 0.210\ j) \\ ans.6 = (c = -5.867\ i - 1.257\ j) \\ ans.7 = (d = 8.800\ i + 1.886\ j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < 9\ ,\ -7\ ,\ 6 >) \\ ans.2 = (AB = 9\ i - 7\ j + 6\ k) \\ ans.3 = (|AB| = (\sqrt{166},\ 12.884)) \\ ans.4 = (u = 0.699\ i - 0.543\ j + 0.466\ k) \\ ans.5 = (c = 4.890\ i - 3.803\ j + 3.260\ k) \\ ans.6 = (d = -5.588\ i + 4.346\ j - 3.726\ k) \end{bmatrix},\quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < -9\ ,\ 11\ ,\ -11 >) \\ ans.2 = (AB = -9\ i + 11\ j - 11\ k) \\ ans.3 = (|AB| = (\sqrt{323},\ 17.972)) \\ ans.4 = (u = -0.501\ i + 0.612\ j - 0.612\ k) \\ ans.5 = (c = -3.505\ i + 4.284\ j - 4.284\ k) \\ ans.6 = (d = 4.507\ i - 5.509\ j + 5.509\ k) \end{bmatrix}$$

$$Ans5 = < 35\ ,\ -6 >,\quad , Ans6 = < -16\ ,\ 7 >,\quad , Ans7 = < 5\ ,\ 27\ ,\ -15 >,\quad , Ans8 = < 4\ ,\ 4\ ,\ 14 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{74},\ 8.602]] \\ ans.2 = \begin{bmatrix} b = < 20\ ,\ 28 > \\ |b| = [4\sqrt{74},\ 34.409] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < -35\ ,\ -49 > \\ |c| = [7\sqrt{74},\ 60.216] \end{bmatrix} \end{bmatrix},\quad , Ans10 = \begin{bmatrix} a + b = < 7\ ,\ 19 > \\ |a| = [\sqrt{290},\ 17.029] \\ |b| = [10,\ 10.000] \\ |a + b| = [\sqrt{410},\ 20.248] \end{bmatrix},\quad , Ans11 = \begin{bmatrix} a - b = < 19\ ,\ 3 > \\ |a| = [\sqrt{290},\ 17.029] \\ |b| = [10,\ 10.000] \\ |a - b| = [\sqrt{370},\ 19.235] \end{bmatrix},\quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < 19\ ,\ 4\ ,\ -5 > \\ |a| = [\sqrt{86},\ 9.274] \\ |b| = [5\sqrt{14},\ 18.708] \\ |a + b| = [\sqrt{402},\ 20.050] \end{bmatrix},\quad , Ans13 = \begin{bmatrix} a - b = < -7\ ,\ -14\ ,\ 15 > \\ |a| = [\sqrt{86},\ 9.274] \\ |b| = [5\sqrt{14},\ 18.708] \\ |a - b| = [\sqrt{470},\ 21.679] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{145},\ 12.042]) \\ ans.3 = (\theta = 41.634\ degrees) \end{bmatrix},\quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{61},\ 7.810]) \\ ans.3 = (\theta = 140.194\ degrees) \end{bmatrix}$$

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Vector01 Answers for No.13519

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <-3, -3>) \\ ans.3 = (AB = -3\,i - 3\,j) \\ ans.4 = (|AB| = (3\sqrt{2}, 4.243)) \\ ans.5 = (u = -0.707\,i - 0.707\,j) \\ ans.6 = (c = -5.657\,i - 5.657\,j) \\ ans.7 = (d = 6.364\,i + 6.364\,j) \end{bmatrix}, \quad Ans2 = \begin{bmatrix} ans.2 = (AB = <11, 3>) \\ ans.3 = (AB = 11\,i + 3\,j) \\ ans.4 = (|AB| = (\sqrt{130}, 11.402)) \\ ans.5 = (u = 0.965\,i + 0.263\,j) \\ ans.6 = (c = 6.753\,i + 1.842\,j) \\ ans.7 = (d = -5.789\,i - 1.579\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <-3, 6, -4>) \\ ans.2 = (AB = -3\,i + 6\,j - 4\,k) \\ ans.3 = (|AB| = (\sqrt{61}, 7.810)) \\ ans.4 = (u = -0.384\,i + 0.768\,j - 0.512\,k) \\ ans.5 = (c = -3.457\,i + 6.914\,j - 4.609\,k) \\ ans.6 = (d = 2.305\,i - 4.609\,j + 3.073\,k) \end{bmatrix}, \quad Ans4 = \begin{bmatrix} ans.1 = (AB = <12, -7, -7>) \\ ans.2 = (AB = 12\,i - 7\,j - 7\,k) \\ ans.3 = (|AB| = (11\sqrt{2}, 15.556)) \\ ans.4 = (u = 0.771\,i - 0.450\,j - 0.450\,k) \\ ans.5 = (c = 4.628\,i - 2.700\,j - 2.700\,k) \\ ans.6 = (d = -6.943\,i + 4.050\,j + 4.050\,k) \end{bmatrix}$$

$$Ans5 = <46, 32>, \quad Ans6 = <-24, 34>, \quad Ans7 = <4, -6, 36>, \quad Ans8 = <16, 31, -24>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{113}, 10.630]] \\ ans.2 = \begin{bmatrix} b = <35, 40> \\ |b| = [5\sqrt{113}, 53.151] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <-28, -32> \\ |c| = [4\sqrt{113}, 42.521] \end{bmatrix} \end{bmatrix}, \quad Ans10 = \begin{bmatrix} a + b = <-5, 20> \\ |a| = [\sqrt{157}, 12.530] \\ |b| = [\sqrt{202}, 14.213] \\ |a + b| = [5\sqrt{17}, 20.616] \end{bmatrix}, \quad Ans11 = \begin{bmatrix} a - b = <17, 2> \\ |a| = [\sqrt{157}, 12.530] \\ |b| = [\sqrt{202}, 14.213] \\ |a - b| = [\sqrt{293}, 17.117] \end{bmatrix}, \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <-3, -5, 8> \\ |a| = [5\sqrt{5}, 11.180] \\ |b| = [3\sqrt{35}, 17.748] \\ |a + b| = [7\sqrt{2}, 9.899] \end{bmatrix}, \quad Ans13 = \begin{bmatrix} a - b = <-13, 17, -18> \\ |a| = [5\sqrt{5}, 11.180] \\ |b| = [3\sqrt{35}, 17.748] \\ |a - b| = [\sqrt{782}, 27.964] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 32.005 \text{ degrees}) \end{bmatrix}, \quad Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{130}, 11.402]) \\ ans.3 = (\theta = 142.125 \text{ degrees}) \end{bmatrix}$$

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Vector01 Answers for No.14276

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < -9 , 5 >) \\ ans.3 = (AB = -9\,i + 5\,j) \\ ans.4 = (|AB| = (\sqrt{106}, 10.296)) \\ ans.5 = (u = -0.874\,i + 0.486\,j) \\ ans.6 = (c = -6.119\,i + 3.400\,j) \\ ans.7 = (d = 5.245\,i - 2.914\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < 11 , 6 >) \\ ans.3 = (AB = 11\,i + 6\,j) \\ ans.4 = (|AB| = (\sqrt{157}, 12.530)) \\ ans.5 = (u = 0.878\,i + 0.479\,j) \\ ans.6 = (c = 6.145\,i + 3.352\,j) \\ ans.7 = (d = -7.901\,i - 4.310\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < -5 , -7 , 5 >) \\ ans.2 = (AB = -5\,i - 7\,j + 5\,k) \\ ans.3 = (|AB| = (3\sqrt{11}, 9.950)) \\ ans.4 = (u = -0.503\,i - 0.704\,j + 0.503\,k) \\ ans.5 = (c = -3.015\,i - 4.221\,j + 3.015\,k) \\ ans.6 = (d = 4.523\,i + 6.332\,j - 4.523\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < 6 , 8 , -13 >) \\ ans.2 = (AB = 6\,i + 8\,j - 13\,k) \\ ans.3 = (|AB| = (\sqrt{269}, 16.401)) \\ ans.4 = (u = 0.366\,i + 0.488\,j - 0.793\,k) \\ ans.5 = (c = 1.829\,i + 2.439\,j - 3.963\,k) \\ ans.6 = (d = -2.195\,i - 2.927\,j + 4.756\,k) \end{bmatrix}$$

$$Ans5 = < -43 , -17 >, \quad , Ans6 = < 30 , -33 >, \quad , Ans7 = < -4 , -23 , 18 >, \quad , Ans8 = < 13 , 10 , -19 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [\sqrt{113}, 10.630]] \\ ans.2 = \begin{bmatrix} b = < 21 , -24 > \\ |b| = [3\sqrt{113}, 31.890] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < -42 , 48 > \\ |c| = [6\sqrt{113}, 63.781] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 16 , -7 > \\ |a| = [3\sqrt{13}, 10.817] \\ |b| = [\sqrt{218}, 14.765] \\ |a + b| = [\sqrt{305}, 17.464] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < 2 , 19 > \\ |a| = [3\sqrt{13}, 10.817] \\ |b| = [\sqrt{218}, 14.765] \\ |a - b| = [\sqrt{365}, 19.105] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < -4 , 1 , 0 > \\ |a| = [\sqrt{230}, 15.166] \\ |b| = [\sqrt{161}, 12.689] \\ |a + b| = [\sqrt{17}, 4.123] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < -14 , 13 , 20 > \\ |a| = [\sqrt{230}, 15.166] \\ |b| = [\sqrt{161}, 12.689] \\ |a - b| = [3\sqrt{85}, 27.659] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{85}, 9.220]) \\ ans.3 = (\theta = 40.601\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{145}, 12.042]) \\ ans.3 = (\theta = 228.366\ degrees) \end{bmatrix}$$

Vector01 Answers for No.14380

$$Ans1 = \begin{bmatrix} ans.2 = (AB = <-4, 6>) \\ ans.3 = (AB = -4\,i + 6\,j) \\ ans.4 = (|AB| = (2\sqrt{13}, 7.211)) \\ ans.5 = (u = -0.555\,i + 0.832\,j) \\ ans.6 = (c = -4.992\,i + 7.488\,j) \\ ans.7 = (d = 4.438\,i - 6.656\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = <3, 15>) \\ ans.3 = (AB = 3\,i + 15\,j) \\ ans.4 = (|AB| = (3\sqrt{26}, 15.297)) \\ ans.5 = (u = 0.196\,i + 0.981\,j) \\ ans.6 = (c = 1.765\,i + 8.825\,j) \\ ans.7 = (d = -1.569\,i - 7.845\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = <3, -3, 3>) \\ ans.2 = (AB = 3\,i - 3\,j + 3\,k) \\ ans.3 = (|AB| = (3\sqrt{3}, 5.196)) \\ ans.4 = (u = 0.577\,i - 0.577\,j + 0.577\,k) \\ ans.5 = (c = 2.887\,i - 2.887\,j + 2.887\,k) \\ ans.6 = (d = -4.041\,i + 4.041\,j - 4.041\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = <-10, 10, -10>) \\ ans.2 = (AB = -10\,i + 10\,j - 10\,k) \\ ans.3 = (|AB| = (10\sqrt{3}, 17.321)) \\ ans.4 = (u = -0.577\,i + 0.577\,j - 0.577\,k) \\ ans.5 = (c = -2.887\,i + 2.887\,j - 2.887\,k) \\ ans.6 = (d = 3.464\,i - 3.464\,j + 3.464\,k) \end{bmatrix}$$

$$Ans5 = <-39, -46>, \quad , Ans6 = <4, -21>, \quad , Ans7 = <-46, -2, -35>, \quad , Ans8 = <36, -12, 36>$$

$$Ans9 = \begin{bmatrix} ans.1 = [|a| = [10, 10.000]] \\ ans.2 = \begin{bmatrix} b = <48, 36> \\ |b| = [60, 60.000] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = <-40, -30> \\ |c| = [50, 50.000] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = <14, -4> \\ |a| = [\sqrt{146}, 12.083] \\ |b| = [\sqrt{130}, 11.402] \\ |a+b| = [2\sqrt{53}, 14.560] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = <-4, -18> \\ |a| = [\sqrt{146}, 12.083] \\ |b| = [\sqrt{130}, 11.402] \\ |a-b| = [2\sqrt{85}, 18.439] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = <-3, -5, 1> \\ |a| = [\sqrt{161}, 12.689] \\ |b| = [\sqrt{206}, 14.353] \\ |a+b| = [\sqrt{35}, 5.916] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = <-17, 17, -11> \\ |a| = [\sqrt{161}, 12.689] \\ |b| = [\sqrt{206}, 14.353] \\ |a-b| = [\sqrt{699}, 26.439] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{89}, 9.434]) \\ ans.3 = (\theta = 57.995\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (|a| = [\sqrt{106}, 10.296]) \\ ans.3 = (\theta = 240.945\ degrees) \end{bmatrix}$$

Vector01 Answers for No.14393

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < 3 , 8 >) \\ ans.3 = (AB = 3\,i + 8\,j) \\ ans.4 = (\left|AB\right| = (\sqrt{73}, 8.544)) \\ ans.5 = (u = 0.351\,i + 0.936\,j) \\ ans.6 = (c = 2.458\,i + 6.554\,j) \\ ans.7 = (d = -2.809\,i - 7.491\,j) \end{bmatrix}, \quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < 9 , 4 >) \\ ans.3 = (AB = 9\,i + 4\,j) \\ ans.4 = (\left|AB\right| = (\sqrt{97}, 9.849)) \\ ans.5 = (u = 0.914\,i + 0.406\,j) \\ ans.6 = (c = 4.569\,i + 2.031\,j) \\ ans.7 = (d = -6.397\,i - 2.843\,j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < -5 , -5 , 3 >) \\ ans.2 = (AB = -5\,i - 5\,j + 3\,k) \\ ans.3 = (\left|AB\right| = (\sqrt{59}, 7.681)) \\ ans.4 = (u = -0.651\,i - 0.651\,j + 0.391\,k) \\ ans.5 = (c = -4.557\,i - 4.557\,j + 2.734\,k) \\ ans.6 = (d = 5.859\,i + 5.859\,j - 3.515\,k) \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < 5 , -13 , 5 >) \\ ans.2 = (AB = 5\,i - 13\,j + 5\,k) \\ ans.3 = (\left|AB\right| = (\sqrt{219}, 14.799)) \\ ans.4 = (u = 0.338\,i - 0.878\,j + 0.338\,k) \\ ans.5 = (c = 2.703\,i - 7.028\,j + 2.703\,k) \\ ans.6 = (d = -2.365\,i + 6.149\,j - 2.365\,k) \end{bmatrix}$$

$$Ans5 = < 54 , -37 >, \quad , Ans6 = < 32 , 19 >, \quad , Ans7 = < -10 , 28 , 2 >, \quad , Ans8 = < -27 , 10 , -40 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [\left|a\right| = [10, 10.000]] \\ ans.2 = \begin{bmatrix} b = < -36 , -48 > \\ \left|b\right| = [60, 60.000] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < 30 , 40 > \\ \left|c\right| = [50, 50.000] \end{bmatrix} \end{bmatrix}, \quad , Ans10 = \begin{bmatrix} a + b = < 15 , -2 > \\ \left|a\right| = [\sqrt{149}, 12.207] \\ \left|b\right| = [\sqrt{106}, 10.296] \\ \left|a + b\right| = [\sqrt{229}, 15.133] \end{bmatrix}, \quad , Ans11 = \begin{bmatrix} a - b = < 5 , 16 > \\ \left|a\right| = [\sqrt{149}, 12.207] \\ \left|b\right| = [\sqrt{106}, 10.296] \\ \left|a - b\right| = [\sqrt{281}, 16.763] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < -18 , 2 , -4 > \\ \left|a\right| = [7\sqrt{6}, 17.146] \\ \left|b\right| = [\sqrt{110}, 10.488] \\ \left|a + b\right| = [2\sqrt{86}, 18.547] \end{bmatrix}, \quad , Ans13 = \begin{bmatrix} a - b = < -8 , -12 , -16 > \\ \left|a\right| = [7\sqrt{6}, 17.146] \\ \left|b\right| = [\sqrt{110}, 10.488] \\ \left|a - b\right| = [4\sqrt{29}, 21.541] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (\left|a\right| = [\sqrt{145}, 12.042]) \\ ans.3 = (\theta = 41.634\ degrees) \end{bmatrix}, \quad , Ans15 = \begin{bmatrix} ans.2 = (\left|a\right| = [\sqrt{85}, 9.220]) \\ ans.3 = (\theta = 139.399\ degrees) \end{bmatrix}$$

Vector01 Answers for No.14417

$$Ans1 = \begin{bmatrix} ans.2 = (AB = < \text{-}8\ ,\ 5 >) \\ ans.3 = (AB = -8\ i + 5\ j) \\ ans.4 = (\left| AB \right| = (\sqrt{89}, 9.434)) \\ ans.5 = (u = -0.848\ i + 0.530\ j) \\ ans.6 = (c = -5.088\ i + 3.180\ j) \\ ans.7 = (d = 5.936\ i - 3.710\ j) \end{bmatrix},\quad , Ans2 = \begin{bmatrix} ans.2 = (AB = < \text{-}5\ ,\ 13 >) \\ ans.3 = (AB = -5\ i + 13\ j) \\ ans.4 = (\left| AB \right| = (\sqrt{194}, 13.928)) \\ ans.5 = (u = -0.359\ i + 0.933\ j) \\ ans.6 = (c = -2.872\ i + 7.467\ j) \\ ans.7 = (d = 2.154\ i - 5.600\ j) \end{bmatrix}$$

$$Ans3 = \begin{bmatrix} ans.1 = (AB = < \text{-}6\ ,\ 3\ ,\ \text{-}3 >) \\ ans.2 = (AB = -6\ i + 3\ j - 3\ k) \\ ans.3 = (\left| AB \right| = (3\sqrt{6}, 7.348)) \\ ans.4 = (u = -0.816\ i + 0.408\ j - 0.408\ k) \\ ans.5 = (c = -5.715\ i + 2.858\ j - 2.858\ k) \\ ans.6 = (d = 6.532\ i - 3.266\ j + 3.266\ k) \end{bmatrix},\quad , Ans4 = \begin{bmatrix} ans.1 = (AB = < \text{-}16\ ,\ 4\ ,\ \text{-}7 >) \\ ans.2 = (AB = -16\ i + 4\ j - 7\ k) \\ ans.3 = (\left| AB \right| = (\sqrt{321}, 17.916)) \\ ans.4 = (u = -0.893\ i + 0.223\ j - 0.391\ k) \\ ans.5 = (c = -7.144\ i + 1.786\ j - 3.126\ k) \\ ans.6 = (d = 6.251\ i - 1.563\ j + 2.735\ k) \end{bmatrix}$$

$$Ans5 = < 26\ ,\ \text{-}34 >,\quad , Ans6 = < 20\ ,\ 25 >,\quad , Ans7 = < 1\ ,\ 21\ ,\ \text{-}37 >,\quad , Ans8 = < \text{-}16\ ,\ 27\ ,\ \text{-}56 >$$

$$Ans9 = \begin{bmatrix} ans.1 = [\left| a \right| = [3\sqrt{13}, 10.817]] \\ ans.2 = \begin{bmatrix} b = < 42\ ,\ 63 > \\ \left| b \right| = [21\sqrt{13}, 75.717] \end{bmatrix} \\ ans.4 = \begin{bmatrix} c = < \text{-}30\ ,\ \text{-}45 > \\ \left| c \right| = [15\sqrt{13}, 54.083] \end{bmatrix} \end{bmatrix},\quad , Ans10 = \begin{bmatrix} a + b = < \text{-}6\ ,\ 11 > \\ \left| a \right| = [\sqrt{85}, 9.220] \\ \left| b \right| = [\sqrt{194}, 13.928] \\ \left| a + b \right| = [\sqrt{157}, 12.530] \end{bmatrix},\quad , Ans11 = \begin{bmatrix} a - b = < 20\ ,\ 1 > \\ \left| a \right| = [\sqrt{85}, 9.220] \\ \left| b \right| = [\sqrt{194}, 13.928] \\ \left| a - b \right| = [\sqrt{401}, 20.025] \end{bmatrix},\quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ MUT \end{bmatrix}$$

$$Ans12 = \begin{bmatrix} a + b = < \text{-}4\ ,\ 19\ ,\ \text{-}19 > \\ \left| a \right| = [\sqrt{217}, 14.731] \\ \left| b \right| = [5\sqrt{11}, 16.583] \\ \left| a + b \right| = [3\sqrt{82}, 27.166] \end{bmatrix},\quad , Ans13 = \begin{bmatrix} a - b = < \text{-}14\ ,\ 1\ ,\ 7 > \\ \left| a \right| = [\sqrt{217}, 14.731] \\ \left| b \right| = [5\sqrt{11}, 16.583] \\ \left| a - b \right| = [\sqrt{246}, 15.684] \end{bmatrix}$$

$$Ans14 = \begin{bmatrix} ans.2 = (\left| a \right| = [\sqrt{145}, 12.042]) \\ ans.3 = (\theta = 41.634\ degrees) \end{bmatrix},\quad , Ans15 = \begin{bmatrix} ans.2 = (\left| a \right| = [\sqrt{74}, 8.602]) \\ ans.3 = (\theta = 234.462\ degrees) \end{bmatrix}$$

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