Diff01 Answers for No.9124

$$Ans1 = (k = 6), \quad , \quad Ans2 = (k = 3), \quad , \quad Ans3 = \begin{bmatrix} a = 26 \\ b = 1 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 4 \\ b = 6 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (5, 8) \\ .2 = (8, 29) \\ .3 = 7 \\ .4 = (6, 13) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 120] \\ .2 = [\mathrm{f}(b) = 131.48, h = 0.2, RateOfChange = 57.400] \\ .3 = [\mathrm{f}(c) = 125.67, h = 0.1, RateOfChange = 56.700] \\ .4 = [\mathrm{f}(d) = 120.5607, h = 0.01, RateOfChange = 56.070] \\ .5 = [RateOfChange\ at\ the\ point\ a = 56] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [10\,\pi], .6 = [12\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = \left[\dfrac{5\sqrt{3}}{2}\right], .6 = \left[\dfrac{7\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9197

$$Ans1 = (k = 3), \quad , \quad Ans2 = (k = 6), \quad , \quad Ans3 = \begin{bmatrix} a = -19 \\ b = 1 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 2 \\ b = 4 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 10) \\ .2 = (8, 42) \\ .3 = 8 \\ .4 = (5, 15) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 101] \\ .2 = [\mathrm{f}(b) = 110.84, h = 0.2, RateOfChange = 49.200] \\ .3 = [\mathrm{f}(c) = 105.86, h = 0.1, RateOfChange = 48.600] \\ .4 = [\mathrm{f}(d) = 101.4806, h = 0.01, RateOfChange = 48.060] \\ .5 = [RateOfChange\ at\ the\ point\ a = 48] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [4\,\pi], .6 = [12\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = [4\sqrt{3}], .6 = \left[\dfrac{3\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9252

$$Ans1 = (k = 7), \quad , Ans2 = (k = 5), \quad , Ans3 = \begin{bmatrix} a = 9 \\ b = 3 \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} a = 7 \\ b = 5 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 3) \\ .2 = (9, 38) \\ .3 = 7 \\ .4 = (5, 6) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 108] \\ .2 = [\mathrm{f}(b) = 119.48, h = 0.2, RateOfChange = 57.400] \\ .3 = [\mathrm{f}(c) = 113.67, h = 0.1, RateOfChange = 56.700] \\ .4 = [\mathrm{f}(d) = 108.5607, h = 0.01, RateOfChange = 56.070] \\ .5 = [RateOfChange\ at\ the\ point\ a = 56] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [10\,\pi], .6 = [4\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = \left[\dfrac{3\sqrt{3}}{2}\right], .6 = [2\sqrt{3}]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9312

$$Ans1 = (k = 4), \quad , Ans2 = (k = 4), \quad , Ans3 = \begin{bmatrix} a = 3 \\ b = 6 \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} a = 7 \\ b = 2 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 7) \\ .2 = (8, 31) \\ .3 = 6 \\ .4 = (5, 10) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 53] \\ .2 = [\mathrm{f}(b) = 57.92, h = 0.2, RateOfChange = 24.600] \\ .3 = [\mathrm{f}(c) = 55.43, h = 0.1, RateOfChange = 24.300] \\ .4 = [\mathrm{f}(d) = 53.2403, h = 0.01, RateOfChange = 24.030] \\ .5 = [RateOfChange\ at\ the\ point\ a = 24] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [10\,\pi], .6 = [8\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = \left[\dfrac{3\sqrt{3}}{2}\right], .6 = [\sqrt{3}]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9397

$$Ans1 = (k = 3), \quad , \; Ans2 = (k = 5), \quad , \; Ans3 = \begin{bmatrix} a = -5 \\ b = 3 \end{bmatrix}, \quad , \; Ans4 = \begin{bmatrix} a = 2 \\ b = 8 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (1, 5) \\ .2 = (4, 20) \\ .3 = 5 \\ .4 = (2, 8) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \; Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 73] \\ .2 = [\mathrm{f}(b) = 81.20, h = 0.2, RateOfChange = 41.000] \\ .3 = [\mathrm{f}(c) = 77.05, h = 0.1, RateOfChange = 40.500] \\ .4 = [\mathrm{f}(d) = 73.4005, h = 0.01, RateOfChange = 40.050] \\ .5 = [RateOfChange\ at\ the\ point\ a = 40] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \; Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [16\,\pi], .6 = [12\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = [2\sqrt{3}], .6 = \left[\dfrac{3\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \; \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9449

$$Ans1 = (k = 4), \quad , \quad Ans2 = (k = 2), \quad , \quad Ans3 = \begin{bmatrix} a = -6 \\ b = -6 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 4 \\ b = 8 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 7) \\ .2 = (7, 28) \\ .3 = 7 \\ .4 = (5, 12) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 20] \\ .2 = [\mathrm{f}(b) = 22.52, h = 0.2, RateOfChange = 12.600] \\ .3 = [\mathrm{f}(c) = 21.23, h = 0.1, RateOfChange = 12.300] \\ .4 = [\mathrm{f}(d) = 20.1203, h = 0.01, RateOfChange = 12.030] \\ .5 = [RateOfChange\ at\ the\ point\ a = 12] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [8\,\pi], .6 = [10\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = [\sqrt{3}], .6 = [4\sqrt{3}]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9562

$$Ans1 = (k = 8), \quad , \quad Ans2 = (k = 4), \quad , \quad Ans3 = \begin{bmatrix} a = -2 \\ b = 1 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 4 \\ b = 2 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 11) \\ .2 = (8, 43) \\ .3 = 8 \\ .4 = (5, 16) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 40] \\ .2 = [\mathrm{f}(b) = 44.92,\ h = 0.2,\ RateOfChange = 24.600] \\ .3 = [\mathrm{f}(c) = 42.43,\ h = 0.1,\ RateOfChange = 24.300] \\ .4 = [\mathrm{f}(d) = 40.2403,\ h = 0.01,\ RateOfChange = 24.030] \\ .5 = [RateOfChange\ at\ the\ point\ a = 24] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [8\,\pi], .6 = [6\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = \left[\dfrac{7\sqrt{3}}{2}\right], .6 = \left[\dfrac{3\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9721

$$Ans1 = (k = 2), \quad , \quad Ans2 = (k = 3), \quad , \quad Ans3 = \begin{bmatrix} a = 1 \\ b = 5 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 8 \\ b = 2 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (2, 9) \\ .2 = (6, 41) \\ .3 = 8 \\ .4 = (3, 14) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 78] \\ .2 = [\mathrm{f}(b) = 86.20, h = 0.2, RateOfChange = 41.000] \\ .3 = [\mathrm{f}(c) = 82.05, h = 0.1, RateOfChange = 40.500] \\ .4 = [\mathrm{f}(d) = 78.4005, h = 0.01, RateOfChange = 40.050] \\ .5 = [RateOfChange\ at\ the\ point\ a = 40] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [14\,\pi], .6 = [10\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = \left[\dfrac{5\sqrt{3}}{2}\right], .6 = [2\sqrt{3}]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9789

$$Ans1 = (k = 12), \quad , Ans2 = (k = 3), \quad , Ans3 = \begin{bmatrix} a = 2 \\ b = -25 \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} a = 7 \\ b = 5 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (5, 11) \\ .2 = (9, 43) \\ .3 = 8 \\ .4 = (6, 16) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 83] \\ .2 = [\mathrm{f}(b) = 91.20, h = 0.2, RateOfChange = 41.000] \\ .3 = [\mathrm{f}(c) = 87.05, h = 0.1, RateOfChange = 40.500] \\ .4 = [\mathrm{f}(d) = 83.4005, h = 0.01, RateOfChange = 40.050] \\ .5 = [RateOfChange\ at\ the\ point\ a = 40] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [8\,\pi], .6 = [10\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = \left[\dfrac{5\sqrt{3}}{2}\right], .6 = [4\sqrt{3}]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9795

$$Ans1 = (k = 12), \quad , Ans2 = (k = 5), \quad , Ans3 = \begin{bmatrix} a = 1 \\ b = -34 \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} a = 3 \\ b = 7 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 5) \\ .2 = (6, 17) \\ .3 = 6 \\ .4 = (5, 10) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 60] \\ .2 = [\mathrm{f}(b) = 68.68, h = 0.2, RateOfChange = 43.400] \\ .3 = [\mathrm{f}(c) = 64.27, h = 0.1, RateOfChange = 42.700] \\ .4 = [\mathrm{f}(d) = 60.4207, h = 0.01, RateOfChange = 42.070] \\ .5 = [RateOfChange\ at\ the\ point\ a = 42] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\pi r] \\ .2 = [\mathrm{f}(r+h) = 2\pi(r+h)] \\ .3 = \left[\frac{2\pi(r+h) - 2\pi r}{h}\right] \\ [.4 = [2\pi], .5 = [2\pi], .6 = [2\pi]] \end{bmatrix}, \quad , Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi r^2] \\ .2 = [\mathrm{f}(r+h) = \pi(r+h)^2] \\ .3 = \left[\frac{\pi(r+h)^2 - \pi r^2}{h}\right] \\ [.4 = [2\pi r], .5 = [10\pi], .6 = [12\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \frac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \frac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\frac{\frac{\sqrt{3}\,(x+h)^2}{4} - \frac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\frac{\sqrt{3}\,x}{2}\right], .5 = [2\sqrt{3}], .6 = [4\sqrt{3}]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9839

$$Ans1 = (k = 3), \quad , \; Ans2 = (k = 5), \quad , \; Ans3 = \begin{bmatrix} a = -1 \\ b = 1 \end{bmatrix}, \quad , \; Ans4 = \begin{bmatrix} a = 7 \\ b = 4 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (2, 8) \\ .2 = (6, 40) \\ .3 = 8 \\ .4 = (3, 13) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , \; Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 39] \\ .2 = [\mathrm{f}(b) = 45.72, h = 0.2, RateOfChange = 33.600] \\ .3 = [\mathrm{f}(c) = 42.28, h = 0.1, RateOfChange = 32.800] \\ .4 = [\mathrm{f}(d) = 39.3208, h = 0.01, RateOfChange = 32.080] \\ .5 = [RateOfChange \text{ at the point } a = 32] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \; Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [4\,\pi], .6 = [12\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = [3\sqrt{3}], .6 = \left[\dfrac{5\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \; \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9843

$$Ans1 = (k = 8), \quad , \quad Ans2 = (k = 6), \quad , \quad Ans3 = \begin{bmatrix} a = 5 \\ b = 3 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 2 \\ b = 8 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 4) \\ .2 = (7, 19) \\ .3 = 5 \\ .4 = (5, 7) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 34] \\ .2 = [\mathrm{f}(b) = 39.88, h = 0.2, RateOfChange = 29.400] \\ .3 = [\mathrm{f}(c) = 36.87, h = 0.1, RateOfChange = 28.700] \\ .4 = [\mathrm{f}(d) = 34.2807, h = 0.01, RateOfChange = 28.070] \\ .5 = [RateOfChange\ at\ the\ point\ a = 28] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [16\,\pi], .6 = [14\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = [2\sqrt{3}], .6 = [4\sqrt{3}]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9854

$$Ans1 = (k = 3), \quad , \; Ans2 = (k = 4), \quad , \; Ans3 = \begin{bmatrix} a = 1 \\ b = 5 \end{bmatrix}, \quad , \; Ans4 = \begin{bmatrix} a = 8 \\ b = 3 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 7) \\ .2 = (9, 42) \\ .3 = 7 \\ .4 = (5, 10) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \; Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 10] \\ .2 = [\mathrm{f}(b) = 12.52, h = 0.2, RateOfChange = 12.600] \\ .3 = [\mathrm{f}(c) = 11.23, h = 0.1, RateOfChange = 12.300] \\ .4 = [\mathrm{f}(d) = 10.1203, h = 0.01, RateOfChange = 12.030] \\ .5 = [RateOfChange\ at\ the\ point\ a = 12] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\pi r] \\ .2 = [\mathrm{f}(r+h) = 2\pi(r+h)] \\ .3 = \left[\dfrac{2\pi(r+h) - 2\pi r}{h}\right] \\ [.4 = [2\pi], .5 = [2\pi], .6 = [2\pi]] \end{bmatrix}, \quad , \; Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi r^2] \\ .2 = [\mathrm{f}(r+h) = \pi(r+h)^2] \\ .3 = \left[\dfrac{\pi(r+h)^2 - \pi r^2}{h}\right] \\ [.4 = [2\pi r], .5 = [6\pi], .6 = [4\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\, x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\, x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\, x}{2}\right], .5 = \left[\dfrac{3\sqrt{3}}{2}\right], .6 = [\sqrt{3}]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.9862

$$Ans1 = (k = 4), \quad , \; Ans2 = (k = 5), \quad , \; Ans3 = \begin{bmatrix} a = -5 \\ b = -7 \end{bmatrix}, \quad , \; Ans4 = \begin{bmatrix} a = 5 \\ b = 8 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (1, 2) \\ .2 = (5, 26) \\ .3 = 6 \\ .4 = (2, 5) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \; Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 35] \\ .2 = [\mathrm{f}(b) = 41.72, h = 0.2, RateOfChange = 33.600] \\ .3 = [\mathrm{f}(c) = 38.28, h = 0.1, RateOfChange = 32.800] \\ .4 = [\mathrm{f}(d) = 35.3208, h = 0.01, RateOfChange = 32.080] \\ .5 = [RateOfChange\ at\ the\ point\ a = 32] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\pi r] \\ .2 = [\mathrm{f}(r+h) = 2\pi(r+h)] \\ .3 = \left[\dfrac{2\pi(r+h) - 2\pi r}{h}\right] \\ [.4 = [2\pi], .5 = [2\pi], .6 = [2\pi]] \end{bmatrix}, \quad , \; Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi r^2] \\ .2 = [\mathrm{f}(r+h) = \pi(r+h)^2] \\ .3 = \left[\dfrac{\pi(r+h)^2 - \pi r^2}{h}\right] \\ [.4 = [2\pi r], .5 = [16\pi], .6 = [10\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = [3\sqrt{3}], .6 = [2\sqrt{3}]\right] \end{bmatrix}, \quad , \; \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.10278

$$Ans1 = (k = 7), \quad , \quad Ans2 = (k = 3), \quad , \quad Ans3 = \begin{bmatrix} a = 5 \\ b = -7 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 5 \\ b = 7 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 8) \\ .2 = (8, 32) \\ .3 = 6 \\ .4 = (5, 11) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 47] \\ .2 = [\mathrm{f}(b) = 53.20,\ h = 0.2,\ RateOfChange = 31.000] \\ .3 = [\mathrm{f}(c) = 50.05,\ h = 0.1,\ RateOfChange = 30.500] \\ .4 = [\mathrm{f}(d) = 47.3005,\ h = 0.01,\ RateOfChange = 30.050] \\ .5 = [RateOfChange\ at\ the\ point\ a = 30] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi],\ .5 = [2\,\pi],\ .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r],\ .5 = [14\,\pi],\ .6 = [12\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right],\ .5 = [3\sqrt{3}],\ .6 = \left[\dfrac{5\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.10361

$$Ans1 = (k = -2), \quad , Ans2 = (k = 2), \quad , Ans3 = \begin{bmatrix} a = 4 \\ b = 1 \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} a = 3 \\ b = 5 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (3, 11) \\ .2 = (7, 43) \\ .3 = 8 \\ .4 = (4, 16) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , Ans6 = \begin{bmatrix} .1 = [f(a) = 23] \\ .2 = [f(b) = 27.20, h = 0.2, RateOfChange = 21.000] \\ .3 = [f(c) = 25.05, h = 0.1, RateOfChange = 20.500] \\ .4 = [f(d) = 23.2005, h = 0.01, RateOfChange = 20.050] \\ .5 = [RateOfChange\ at\ the\ point\ a = 20] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [f(r) = 2\pi r] \\ .2 = [f(r+h) = 2\pi(r+h)] \\ .3 = \left[\frac{2\pi(r+h) - 2\pi r}{h}\right] \\ [.4 = [2\pi], .5 = [2\pi], .6 = [2\pi]] \end{bmatrix}, \quad , Ans8 = \begin{bmatrix} .1 = [f(r) = \pi r^2] \\ .2 = [f(r+h) = \pi(r+h)^2] \\ .3 = \left[\frac{\pi(r+h)^2 - \pi r^2}{h}\right] \\ [.4 = [2\pi r], .5 = [6\pi], .6 = [14\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[f(x) = \frac{\sqrt{3}\, x^2}{4}\right] \\ .2 = \left[f(x+h) = \frac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\frac{\frac{\sqrt{3}\,(x+h)^2}{4} - \frac{\sqrt{3}\, x^2}{4}}{h}\right] \\ \left[.4 = \left[\frac{\sqrt{3}\, x}{2}\right], .5 = [3\sqrt{3}], .6 = [4\sqrt{3}]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.10532

$$Ans1 = (k = 8), \quad , Ans2 = (k = 4), \quad , Ans3 = \begin{bmatrix} a = 15 \\ b = 4 \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} a = 2 \\ b = 8 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (5, 7) \\ .2 = (9, 39) \\ .3 = 8 \\ .4 = (6, 12) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 82] \\ .2 = [\mathrm{f}(b) = 90.20, h = 0.2, RateOfChange = 41.000] \\ .3 = [\mathrm{f}(c) = 86.05, h = 0.1, RateOfChange = 40.500] \\ .4 = [\mathrm{f}(d) = 82.4005, h = 0.01, RateOfChange = 40.050] \\ .5 = [RateOfChange\ at\ the\ point\ a = 40] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\, r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\, r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\, r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\, r^2}{h}\right] \\ [.4 = [2\,\pi\, r], .5 = [14\,\pi], .6 = [6\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\, x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\, x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\, x}{2}\right], .5 = [4\sqrt{3}], .6 = [2\sqrt{3}]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.10688

$$Ans1 = (k = 4), \quad , Ans2 = (k = 4), \quad , Ans3 = \begin{bmatrix} a = -2 \\ b = 3 \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} a = 8 \\ b = 6 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (3, 9) \\ .2 = (5, 21) \\ .3 = 6 \\ .4 = (4, 14) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , Ans6 = \begin{bmatrix} .1 = [f(a) = 26] \\ .2 = [f(b) = 30.20, h = 0.2, RateOfChange = 21.000] \\ .3 = [f(c) = 28.05, h = 0.1, RateOfChange = 20.500] \\ .4 = [f(d) = 26.2005, h = 0.01, RateOfChange = 20.050] \\ .5 = [RateOfChange\ at\ the\ point\ a = 20] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [f(r) = 2\pi r] \\ .2 = [f(r+h) = 2\pi(r+h)] \\ .3 = \left[\dfrac{2\pi(r+h) - 2\pi r}{h}\right] \\ [.4 = [2\pi], .5 = [2\pi], .6 = [2\pi]] \end{bmatrix}, \quad , Ans8 = \begin{bmatrix} .1 = [f(r) = \pi r^2] \\ .2 = [f(r+h) = \pi (r+h)^2] \\ .3 = \left[\dfrac{\pi(r+h)^2 - \pi r^2}{h}\right] \\ [.4 = [2\pi r], .5 = [16\pi], .6 = [12\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[f(x) = \dfrac{\sqrt{3}\, x^2}{4}\right] \\ .2 = \left[f(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\, x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\, x}{2}\right], .5 = [2\sqrt{3}], .6 = \left[\dfrac{5\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.10868

$$Ans1 = (k = 46), \quad , Ans2 = (k = 3), \quad , Ans3 = \begin{bmatrix} a = 9 \\ b = -7 \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} a = 2 \\ b = 8 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 6) \\ .2 = (8, 30) \\ .3 = 6 \\ .4 = (5, 9) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 88] \\ .2 = [\mathrm{f}(b) = 96.20, h = 0.2, RateOfChange = 41.000] \\ .3 = [\mathrm{f}(c) = 92.05, h = 0.1, RateOfChange = 40.500] \\ .4 = [\mathrm{f}(d) = 88.4005, h = 0.01, RateOfChange = 40.050] \\ .5 = [RateOfChange\ at\ the\ point\ a = 40] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [16\,\pi], .6 = [6\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = [3\sqrt{3}], .6 = \left[\dfrac{5\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.10900

$$Ans1 = (k = 8), \quad , \; Ans2 = (k = 6), \quad , \; Ans3 = \begin{bmatrix} a = -5 \\ b = 2 \end{bmatrix}, \quad , \; Ans4 = \begin{bmatrix} a = 3 \\ b = 7 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (2, 4) \\ .2 = (5, 19) \\ .3 = 5 \\ .4 = (3, 7) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \; Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 19] \\ .2 = [\mathrm{f}(b) = 22.36, h = 0.2, RateOfChange = 16.800] \\ .3 = [\mathrm{f}(c) = 20.64, h = 0.1, RateOfChange = 16.400] \\ .4 = [\mathrm{f}(d) = 19.1604, h = 0.01, RateOfChange = 16.040] \\ .5 = [RateOfChange\ at\ the\ point\ a = 16] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \; Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [14\,\pi], .6 = [6\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = \left[\dfrac{3\sqrt{3}}{2}\right], .6 = [3\sqrt{3}]\right] \end{bmatrix}, \quad , \; \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.11693

$$Ans1 = (k = 24), \quad , Ans2 = (k = 6), \quad , Ans3 = \begin{bmatrix} a = 35 \\ b = -7 \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} a = 7 \\ b = 2 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (2, 6) \\ .2 = (4, 18) \\ .3 = 6 \\ .4 = (3, 11) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , Ans6 = \begin{bmatrix} .1 = [f(a) = 5] \\ .2 = [f(b) = 7.52, h = 0.2, RateOfChange = 12.600] \\ .3 = [f(c) = 6.23, h = 0.1, RateOfChange = 12.300] \\ .4 = [f(d) = 5.1203, h = 0.01, RateOfChange = 12.030] \\ .5 = [RateOfChange\ at\ the\ point\ a = 12] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [f(r) = 2\pi r] \\ .2 = [f(r+h) = 2\pi(r+h)] \\ .3 = \left[\frac{2\pi(r+h) - 2\pi r}{h}\right] \\ [.4 = [2\pi], .5 = [2\pi], .6 = [2\pi]] \end{bmatrix}, \quad , Ans8 = \begin{bmatrix} .1 = [f(r) = \pi r^2] \\ .2 = [f(r+h) = \pi(r+h)^2] \\ .3 = \left[\frac{\pi(r+h)^2 - \pi r^2}{h}\right] \\ [.4 = [2\pi r], .5 = [8\pi], .6 = [16\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[f(x) = \frac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[f(x+h) = \frac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\frac{\frac{\sqrt{3}\,(x+h)^2}{4} - \frac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\frac{\sqrt{3}\,x}{2}\right], .5 = [4\sqrt{3}], .6 = [\sqrt{3}]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.12097

$$Ans1 = (k = 3), \quad , \quad Ans2 = (k = 5), \quad , \quad Ans3 = \begin{bmatrix} a = 19 \\ b = 5 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 2 \\ b = 4 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 3) \\ .2 = (8, 27) \\ .3 = 6 \\ .4 = (5, 6) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 39] \\ .2 = [\mathrm{f}(b) = 45.72, h = 0.2, RateOfChange = 33.600] \\ .3 = [\mathrm{f}(c) = 42.28, h = 0.1, RateOfChange = 32.800] \\ .4 = [\mathrm{f}(d) = 39.3208, h = 0.01, RateOfChange = 32.080] \\ .5 = [RateOfChange\ at\ the\ point\ a = 32] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [8\,\pi], .6 = [14\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = \left[\dfrac{7\sqrt{3}}{2}\right], .6 = \left[\dfrac{5\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.12172

$$Ans1 = (k = 4), \quad , \quad Ans2 = (k = 6), \quad , \quad Ans3 = \begin{bmatrix} a = 2 \\ b = -5 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 6 \\ b = 8 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (2, 8) \\ .2 = (6, 40) \\ .3 = 8 \\ .4 = (3, 13) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 17] \\ .2 = [\mathrm{f}(b) = 21.20,\ h = 0.2,\ RateOfChange = 21.000] \\ .3 = [\mathrm{f}(c) = 19.05,\ h = 0.1,\ RateOfChange = 20.500] \\ .4 = [\mathrm{f}(d) = 17.2005,\ h = 0.01,\ RateOfChange = 20.050] \\ .5 = [RateOfChange\ at\ the\ point\ a = 20] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi],\ .5 = [2\,\pi],\ .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r],\ .5 = [4\,\pi],\ .6 = [12\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right],\ .5 = \left[\dfrac{3\sqrt{3}}{2}\right],\ .6 = [\sqrt{3}]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.12173

$$Ans1 = (k = 7), \quad , \quad Ans2 = (k = 3), \quad , \quad Ans3 = \begin{bmatrix} a = 7 \\ b = 1 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 2 \\ b = 7 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (2, 7) \\ .2 = (5, 22) \\ .3 = 5 \\ .4 = (3, 10) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 114] \\ .2 = [\mathrm{f}(b) = 125.48, h = 0.2, RateOfChange = 57.400] \\ .3 = [\mathrm{f}(c) = 119.67, h = 0.1, RateOfChange = 56.700] \\ .4 = [\mathrm{f}(d) = 114.5607, h = 0.01, RateOfChange = 56.070] \\ .5 = [RateOfChange\ at\ the\ point\ a = 56] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\frac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\frac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [14\,\pi], .6 = [10\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \frac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \frac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\frac{\frac{\sqrt{3}\,(x+h)^2}{4} - \frac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\frac{\sqrt{3}\,x}{2}\right], .5 = [3\sqrt{3}], .6 = [\sqrt{3}]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.12180

$$Ans1 = (k = 20), \quad , Ans2 = (k = 2), \quad , Ans3 = \begin{bmatrix} a = 31 \\ b = 3 \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} a = 3 \\ b = 7 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (2, 7) \\ .2 = (5, 28) \\ .3 = 7 \\ .4 = (3, 12) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , Ans6 = \begin{bmatrix} .1 = [f(a) = 106] \\ .2 = [f(b) = 117.48, h = 0.2, RateOfChange = 57.400] \\ .3 = [f(c) = 111.67, h = 0.1, RateOfChange = 56.700] \\ .4 = [f(d) = 106.5607, h = 0.01, RateOfChange = 56.070] \\ .5 = [RateOfChange\ at\ the\ point\ a = 56] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [f(r) = 2\pi r] \\ .2 = [f(r+h) = 2\pi(r+h)] \\ .3 = \left[\frac{2\pi(r+h) - 2\pi r}{h}\right] \\ [.4 = [2\pi], .5 = [2\pi], .6 = [2\pi]] \end{bmatrix}, \quad , Ans8 = \begin{bmatrix} .1 = [f(r) = \pi r^2] \\ .2 = [f(r+h) = \pi(r+h)^2] \\ .3 = \left[\frac{\pi(r+h)^2 - \pi r^2}{h}\right] \\ [.4 = [2\pi r], .5 = [8\pi], .6 = [4\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[f(x) = \frac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[f(x+h) = \frac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\frac{\frac{\sqrt{3}\,(x+h)^2}{4} - \frac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\frac{\sqrt{3}\,x}{2}\right], .5 = [\sqrt{3}], .6 = [2\sqrt{3}]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.12256

$$Ans1 = (k = 3), \quad , Ans2 = (k = 6), \quad , Ans3 = \begin{bmatrix} a = 7 \\ b = 1 \end{bmatrix}, \quad , Ans4 = \begin{bmatrix} a = 3 \\ b = 5 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (3, 5) \\ .2 = (5, 17) \\ .3 = 6 \\ .4 = (4, 10) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 55] \\ .2 = [\mathrm{f}(b) = 63.68, h = 0.2, RateOfChange = 43.400] \\ .3 = [\mathrm{f}(c) = 59.27, h = 0.1, RateOfChange = 42.700] \\ .4 = [\mathrm{f}(d) = 55.4207, h = 0.01, RateOfChange = 42.070] \\ .5 = [RateOfChange\ at\ the\ point\ a = 42] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\, r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\, r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\, r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\, r^2}{h}\right] \\ [.4 = [2\,\pi\, r], .5 = [14\,\pi], .6 = [12\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\, x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\, x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\, x}{2}\right], .5 = \left[\dfrac{3\sqrt{3}}{2}\right], .6 = [2\sqrt{3}]\right] \end{bmatrix}, \quad , \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.12278

$$Ans1 = (k = 2), \quad , \quad Ans2 = (k = 6), \quad , \quad Ans3 = \begin{bmatrix} a = 3 \\ b = -45 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 4 \\ b = 8 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 8) \\ .2 = (7, 23) \\ .3 = 5 \\ .4 = (5, 11) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 59] \\ .2 = [\mathrm{f}(b) = 67.68, h = 0.2, RateOfChange = 43.400] \\ .3 = [\mathrm{f}(c) = 63.27, h = 0.1, RateOfChange = 42.700] \\ .4 = [\mathrm{f}(d) = 59.4207, h = 0.01, RateOfChange = 42.070] \\ .5 = [RateOfChange\ at\ the\ point\ a = 42] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\pi r] \\ .2 = [\mathrm{f}(r+h) = 2\pi(r+h)] \\ .3 = \left[\dfrac{2\pi(r+h) - 2\pi r}{h}\right] \\ [.4 = [2\pi], .5 = [2\pi], .6 = [2\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi r^2] \\ .2 = [\mathrm{f}(r+h) = \pi(r+h)^2] \\ .3 = \left[\dfrac{\pi(r+h)^2 - \pi r^2}{h}\right] \\ [.4 = [2\pi r], .5 = [14\pi], .6 = [10\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = [\sqrt{3}], .6 = \left[\dfrac{3\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.12482

$$Ans1 = (k = 3), \quad , \quad Ans2 = (k = 3), \quad , \quad Ans3 = \begin{bmatrix} a = -5 \\ b = 1 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 2 \\ b = 6 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (3, 5) \\ .2 = (5, 17) \\ .3 = 6 \\ .4 = (4, 10) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 24] \\ .2 = [\mathrm{f}(b) = 28.20, h = 0.2, RateOfChange = 21.000] \\ .3 = [\mathrm{f}(c) = 26.05, h = 0.1, RateOfChange = 20.500] \\ .4 = [\mathrm{f}(d) = 24.2005, h = 0.01, RateOfChange = 20.050] \\ .5 = [RateOfChange\ at\ the\ point\ a = 20] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r + h) = 2\,\pi\,(r + h)] \\ .3 = \left[\frac{2\,\pi\,(r + h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r + h) = \pi\,(r + h)^2] \\ .3 = \left[\frac{\pi\,(r + h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [16\,\pi], .6 = [4\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \frac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x + h) = \frac{\sqrt{3}\,(x + h)^2}{4}\right] \\ .3 = \left[\frac{\frac{\sqrt{3}\,(x + h)^2}{4} - \frac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\frac{\sqrt{3}\,x}{2}\right], .5 = \left[\frac{7\sqrt{3}}{2}\right], .6 = [4\sqrt{3}]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.12586

$$Ans1 = (k=2), \quad , \quad Ans2 = (k=3), \quad , \quad Ans3 = \begin{bmatrix} a=6 \\ b=3 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a=4 \\ b=2 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (4, 6) \\ .2 = (9, 41) \\ .3 = 7 \\ .4 = (5, 9) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 24] \\ .2 = [\mathrm{f}(b) = 29.88, h = 0.2, RateOfChange = 29.400] \\ .3 = [\mathrm{f}(c) = 26.87, h = 0.1, RateOfChange = 28.700] \\ .4 = [\mathrm{f}(d) = 24.2807, h = 0.01, RateOfChange = 28.070] \\ .5 = [RateOfChange\ at\ the\ point\ a = 28] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\pi r] \\ .2 = [\mathrm{f}(r+h) = 2\pi(r+h)] \\ .3 = \left[\frac{2\pi(r+h) - 2\pi r}{h}\right] \\ [.4 = [2\pi], .5 = [2\pi], .6 = [2\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi r^2] \\ .2 = [\mathrm{f}(r+h) = \pi(r+h)^2] \\ .3 = \left[\frac{\pi(r+h)^2 - \pi r^2}{h}\right] \\ [.4 = [2\pi r], .5 = [14\pi], .6 = [16\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \frac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \frac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\frac{\frac{\sqrt{3}\,(x+h)^2}{4} - \frac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\frac{\sqrt{3}\,x}{2}\right], .5 = [4\sqrt{3}], .6 = \left[\frac{3\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.12677

$$Ans1 = (k=4), \quad , \quad Ans2 = (k=6), \quad , \quad Ans3 = \begin{bmatrix} a=6 \\ b=-3 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a=3 \\ b=7 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (5, 8) \\ .2 = (9, 40) \\ .3 = 8 \\ .4 = (6, 13) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 31] \\ .2 = [\mathrm{f}(b) = 36.88,\ h = 0.2,\ RateOfChange = 29.400] \\ .3 = [\mathrm{f}(c) = 33.87,\ h = 0.1,\ RateOfChange = 28.700] \\ .4 = [\mathrm{f}(d) = 31.2807,\ h = 0.01,\ RateOfChange = 28.070] \\ .5 = [RateOfChange\ at\ the\ point\ a = 28] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\pi r] \\ .2 = [\mathrm{f}(r+h) = 2\pi(r+h)] \\ .3 = \left[\dfrac{2\pi(r+h) - 2\pi r}{h}\right] \\ [.4 = [2\pi], .5 = [2\pi], .6 = [2\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi r^2] \\ .2 = [\mathrm{f}(r+h) = \pi(r+h)^2] \\ .3 = \left[\dfrac{\pi(r+h)^2 - \pi r^2}{h}\right] \\ [.4 = [2\pi r], .5 = [12\pi], .6 = [8\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = [\sqrt{3}], .6 = [4\sqrt{3}]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.13490

$$Ans1 = (k = 4), \quad , \quad Ans2 = (k = 3), \quad , \quad Ans3 = \begin{bmatrix} a = 19 \\ b = 3 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 6 \\ b = 3 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (3, 6) \\ .2 = (6, 21) \\ .3 = 5 \\ .4 = (4, 9) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 72] \\ .2 = [\mathrm{f}(b) = 80.20,\ h = 0.2,\ RateOfChange = 41.000] \\ .3 = [\mathrm{f}(c) = 76.05,\ h = 0.1,\ RateOfChange = 40.500] \\ .4 = [\mathrm{f}(d) = 72.4005,\ h = 0.01,\ RateOfChange = 40.050] \\ .5 = [RateOfChange\ at\ the\ point\ a = 40] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [10\,\pi], .6 = [16\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = [2\sqrt{3}], .6 = [4\sqrt{3}]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.13500

$$Ans1 = (k = 38), \quad , \quad Ans2 = (k = 6), \quad , \quad Ans3 = \begin{bmatrix} a = -25 \\ b = 1 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a = 2 \\ b = 4 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (5, 10) \\ .2 = (7, 22) \\ .3 = 6 \\ .4 = (6, 15) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 27] \\ .2 = [\mathrm{f}(b) = 33.72, h = 0.2, RateOfChange = 33.600] \\ .3 = [\mathrm{f}(c) = 30.28, h = 0.1, RateOfChange = 32.800] \\ .4 = [\mathrm{f}(d) = 27.3208, h = 0.01, RateOfChange = 32.080] \\ .5 = [RateOfChange\ at\ the\ point\ a = 32] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [10\,\pi], .6 = [14\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = [3\sqrt{3}], .6 = \left[\dfrac{7\sqrt{3}}{2}\right]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.13637

$$Ans1 = (k=6), \quad , \quad Ans2 = (k=3), \quad , \quad Ans3 = \begin{bmatrix} a=3 \\ b=6 \end{bmatrix}, \quad , \quad Ans4 = \begin{bmatrix} a=6 \\ b=2 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (1, 4) \\ .2 = (5, 28) \\ .3 = 6 \\ .4 = (2, 7) \\ .5 = 3 \\ .6 = 2 \end{bmatrix}, \quad , \quad Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 103] \\ .2 = [\mathrm{f}(b) = 112.84, h = 0.2, RateOfChange = 49.200] \\ .3 = [\mathrm{f}(c) = 107.86, h = 0.1, RateOfChange = 48.600] \\ .4 = [\mathrm{f}(d) = 103.4806, h = 0.01, RateOfChange = 48.060] \\ .5 = [RateOfChange\ at\ the\ point\ a = 48] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \quad Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [16\,\pi], .6 = [4\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = \left[\dfrac{7\sqrt{3}}{2}\right], .6 = [4\sqrt{3}]\right] \end{bmatrix}, \quad , \quad \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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Diff01 Answers for No.14015

$$Ans1 = (k = 4), \quad , \; Ans2 = (k = 6), \quad , \; Ans3 = \begin{bmatrix} a = 7 \\ b = -5 \end{bmatrix}, \quad , \; Ans4 = \begin{bmatrix} a = 2 \\ b = 4 \end{bmatrix}$$

$$Ans5 = \begin{bmatrix} .1 = (5, 8) \\ .2 = (9, 40) \\ .3 = 8 \\ .4 = (6, 13) \\ .5 = 5 \\ .6 = 4 \end{bmatrix}, \quad , \; Ans6 = \begin{bmatrix} .1 = [\mathrm{f}(a) = 31] \\ .2 = [\mathrm{f}(b) = 36.88,\ h = 0.2,\ RateOfChange = 29.400] \\ .3 = [\mathrm{f}(c) = 33.87,\ h = 0.1,\ RateOfChange = 28.700] \\ .4 = [\mathrm{f}(d) = 31.2807,\ h = 0.01,\ RateOfChange = 28.070] \\ .5 = [RateOfChange\ at\ the\ point\ a = 28] \end{bmatrix}$$

$$Ans7 = \begin{bmatrix} .1 = [\mathrm{f}(r) = 2\,\pi\,r] \\ .2 = [\mathrm{f}(r+h) = 2\,\pi\,(r+h)] \\ .3 = \left[\dfrac{2\,\pi\,(r+h) - 2\,\pi\,r}{h}\right] \\ [.4 = [2\,\pi], .5 = [2\,\pi], .6 = [2\,\pi]] \end{bmatrix}, \quad , \; Ans8 = \begin{bmatrix} .1 = [\mathrm{f}(r) = \pi\,r^2] \\ .2 = [\mathrm{f}(r+h) = \pi\,(r+h)^2] \\ .3 = \left[\dfrac{\pi\,(r+h)^2 - \pi\,r^2}{h}\right] \\ [.4 = [2\,\pi\,r], .5 = [12\,\pi], .6 = [10\,\pi]] \end{bmatrix}$$

$$Ans9 = \begin{bmatrix} .1 = \left[\mathrm{f}(x) = \dfrac{\sqrt{3}\,x^2}{4}\right] \\ .2 = \left[\mathrm{f}(x+h) = \dfrac{\sqrt{3}\,(x+h)^2}{4}\right] \\ .3 = \left[\dfrac{\dfrac{\sqrt{3}\,(x+h)^2}{4} - \dfrac{\sqrt{3}\,x^2}{4}}{h}\right] \\ \left[.4 = \left[\dfrac{\sqrt{3}\,x}{2}\right], .5 = \left[\dfrac{5\sqrt{3}}{2}\right], .6 = [3\sqrt{3}]\right] \end{bmatrix}, \quad , \; \begin{bmatrix} M \\ a \\ t \\ h \\ @ \\ M \\ U \\ T \end{bmatrix}$$

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