## XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00001XX Matrices02 for No. 9594

$$
\begin{gathered}
A=[22], B=[-16], C=\left[\begin{array}{ll}
-4 & -6 \\
-5 & -6
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
4 & -10 \\
3 & 10
\end{array}\right], E=\left[\begin{array}{lll}
2 & 0 & 4 \\
4 & 2 & -2 \\
2 & 4 & -4
\end{array}\right], F=\left[\begin{array}{rrr}
-4 & 3 & -2 \\
3 & -4 & 0 \\
-4 & -3 & 3
\end{array}\right],\left[\begin{array}{l}
m=1 \\
p=4
\end{array}\right] \\
\text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{ll}
4 & 3 \\
4 & x
\end{array}\right]\right)=-4\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
2 & y & -4 \\
3 & -4 & -3 \\
-3 & 4 & -2
\end{array}\right]\right)=-5\right], \text { Nol1 }=\left[G=\left[\begin{array}{rr}
4 & -3 \\
-2 & 2
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
3 x-2 y=5 \\
4 x+2 y=16
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
5 x-2 y=-19 \\
5 x+2 y=-11
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
3 y+2 z=11 \\
-x-2 z=8 \\
3 x+y=-7
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-3 x+2 y=5 \\
2 y-z=20 \\
-2 x-z=0
\end{array}\right]
$$

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X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00002XX Matrices02 for No. 9608


$$
\begin{aligned}
& A=[-15], B=\left[\begin{array}{rr}
7
\end{array}\right], C=\left[\begin{array}{rr}
8 & 2 \\
4 & -4
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
11 & -3 \\
8 & 3
\end{array}\right], E=\left[\begin{array}{rrr}
0 & 4 & -2 \\
4 & -3 & -4 \\
2 & 4 & -4
\end{array}\right], F=\left[\begin{array}{rrr}
2 & 4 & -4 \\
0 & -2 & -3 \\
3 & 3 & 2
\end{array}\right],\left[\begin{array}{l}
m=2 \\
p=4
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{cc}
-3 & -3 \\
2 & x
\end{array}\right]\right)=12\right], N o 10=\left[\operatorname{det}\left(\left[\begin{array}{lll}
4 & 4 & -2 \\
y & 4 & -2 \\
2 & 4 & -3
\end{array}\right]\right)=0\right], \text { Noll }=\left[G=\left[\begin{array}{cc}
-3 & -3 \\
-4 & 2
\end{array}\right]\right] \\
& \text { System } 1=\left[\begin{array}{l}
-4 x+2 y=-24 \\
-2 x+4 y=-18
\end{array}\right], \quad \text { System } 2=\left[\begin{array}{c}
5 x+y=31 \\
-x+5 y=-27
\end{array}\right], \quad \text { System } 3=\left[\begin{array}{c}
2 x-2 z=-8 \\
x+y=6 \\
-3 y+3 z=6
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-2 x+3 z=8 \\
y-2 z=-10 \\
x-y=3
\end{array}\right]
\end{aligned}
$$

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 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00003XX Matrices02 for No. 9646

$$
\begin{aligned}
& A=\left[\begin{array}{ll}
8
\end{array}\right], B=[12], C=\left[\begin{array}{rr}
-3 & -6 \\
-4 & 2
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
5 & 3 \\
11 & 5
\end{array}\right], E=\left[\begin{array}{rrr}
-4 & 3 & 2 \\
4 & 2 & 0 \\
2 & 3 & -3
\end{array}\right], F=\left[\begin{array}{rrr}
3 & 0 & -3 \\
4 & 3 & 2 \\
-3 & 2 & 2
\end{array}\right],\left[\begin{array}{l}
m=3 \\
p=1
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{ll}
x & -2 \\
3 & -4
\end{array}\right]\right)=-2\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
-2 & -4 & -3 \\
4 & y & -2 \\
-2 & 4 & -4
\end{array}\right]\right)=-150\right], \text { Nol1 }=\left[G=\left[\begin{array}{ll}
-2 & -5 \\
-5 & -5
\end{array}\right]\right]
\end{aligned}
$$

$$
\text { System } 1=\left[\begin{array}{c}
-5 x+2 y=-10 \\
x+y=9
\end{array}\right], \quad \text {, System } 2=\left[\begin{array}{c}
-x-2 y=-9 \\
2 x+2 y=6
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
-2 y+2 z=-10 \\
-x+2 z=-4 \\
x+y=15
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
x+z=6 \\
y-z=-15 \\
3 x+y=-13
\end{array}\right]
$$

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X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00004XX Matrices02 for No. 9649

$$
\begin{gathered}
A=[13], B=[-7], C=\left[\begin{array}{ll}
3 & 3 \\
2 & 5
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
-7 & 2 \\
10 & 12
\end{array}\right], E=\left[\begin{array}{rrr}
2 & -2 & 2 \\
-3 & 0 & 2 \\
-3 & -3 & -4
\end{array}\right], F=\left[\begin{array}{rr}
-2 & -2 \\
0 & 2 \\
-3 & 2
\end{array}\right],\left[\begin{array}{l}
m=1 \\
p=2
\end{array}\right] \\
N o 09=\left[\operatorname{det}\left(\left[\begin{array}{rr}
2 & x \\
-2 & -4
\end{array}\right]\right)=0\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
3 & -3 & -2 \\
4 & 2 & 4 \\
y & -4 & 4
\end{array}\right]\right)=168\right], \text { Noll }=\left[G=\left[\begin{array}{rr}
5 & 3 \\
4 & -4
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
-3 x+3 y=39 \\
-3 x-5 y=-17
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
4 x-4 y=-32 \\
5 x+3 y=0
\end{array}\right], \quad \text { System } 3=\left[\begin{array}{c}
y-z=-9 \\
3 x+z=-9 \\
-3 x+3 y=6
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-2 x-2 y=4 \\
-y+2 z=-6 \\
2 x+3 z=-11
\end{array}\right]
$$

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 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00005XX Matrices02 for No. 9669

$$
\begin{gathered}
A=[-11], B=[-23], C=\left[\begin{array}{rr}
2 & -6 \\
-8 & 7
\end{array}\right], \mathrm{D}=\left[\begin{array}{ll}
4 & 5 \\
2 & 2
\end{array}\right], E=\left[\begin{array}{rrr}
-3 & -4 & -4 \\
-2 & 4 & 2 \\
-2 & -2 & 0
\end{array}\right], F=\left[\begin{array}{rrr}
2 & 0 & -4 \\
-4 & -3 & 2 \\
2 & 3 & 3
\end{array}\right],\left[\begin{array}{l}
m=1 \\
p=2
\end{array}\right] \\
\text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{rr}
2 & -2 \\
-3 & x
\end{array}\right]\right)=-14\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
4 & -2 & -3 \\
2 & 4 & -4 \\
y & 4 & 3
\end{array}\right]\right)=20\right], N o 11=\left[G=\left[\begin{array}{ll}
-4 & -3 \\
-4 & -2
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
-x-4 y=-22 \\
3 x-2 y=10
\end{array}\right], \quad, \quad \text { System } 2=\left[\begin{array}{c}
-5 x+2 y=21 \\
5 x-4 y=-17
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
x+2 y=-11 \\
-x-2 z=-7 \\
-y-z=-3
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{l}
-2 y-z=12 \\
-3 x-z=-10 \\
-x+2 y=-14
\end{array}\right]
$$

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X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00006XX Matrices02 for No. 9717

$$
\begin{gathered}
A=[-22], B=[-9], C=\left[\begin{array}{rr}
4 & 4 \\
7 & -7
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
-7 & -5 \\
3 & -11
\end{array}\right], E=\left[\begin{array}{rrr}
-3 & 4 & 3 \\
-3 & -3 & -2 \\
-4 & 4 & 0
\end{array}\right], F=\left[\begin{array}{rrr}
-2 & -2 & 4 \\
-3 & 4 & -3 \\
-3 & 0 & -2
\end{array}\right],\left[\begin{array}{l}
m=1 \\
p=4
\end{array}\right] \\
N o 09=\left[\operatorname{det}\left(\left[\begin{array}{rr}
x & 2 \\
-3 & -2
\end{array}\right]\right)=2\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
-3 & 2 & 2 \\
-3 & -2 & -3 \\
3 & -4 & y
\end{array}\right]\right)=18\right], N o 11=\left[G=\left[\begin{array}{rr}
5 & 5 \\
2 & -3
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
-2 x-5 y=28 \\
-x-y=2
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
4 x-4 y=48 \\
2 x+3 y=4
\end{array}\right], \quad, \text { System } 3=\left[\begin{array}{c}
-x+2 y=-19 \\
-x+3 z=5 \\
y-z=-10
\end{array}\right], \quad, \text { System } 4=\left[\begin{array}{c}
-2 x-2 z=4 \\
2 x+3 y=-1 \\
3 y-3 z=-3
\end{array}\right]
$$

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 $:$X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00007XX Matrices02 for No. 9763

$$
\begin{gathered}
A=[17], B=[10], C=\left[\begin{array}{rr}
-5 & -6 \\
-3 & 5
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
10 & 3 \\
-6 & -6
\end{array}\right], E=\left[\begin{array}{rrr}
-2 & -4 & 0 \\
-4 & -4 & 3 \\
-4 & 2 & -2
\end{array}\right], F=\left[\begin{array}{rrr}
-3 & -3 & 4 \\
-4 & -2 & -4 \\
2 & 0 & -2
\end{array}\right],\left[\begin{array}{l}
m=2 \\
p=1
\end{array}\right] \\
\text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{rr}
-3 & -2 \\
2 & x
\end{array}\right]\right)=13\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
3 & -4 & -3 \\
-3 & -2 & 4 \\
y & 3 & -3
\end{array}\right]\right)=1\right], N o 11=\left[G=\left[\begin{array}{rr}
3 & 3 \\
5 & -3
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
-x+y=-13 \\
5 x+2 y=23
\end{array}\right], \quad \text {, System } 2=\left[\begin{array}{c}
3 x+5 y=-34 \\
-3 x+3 y=-30
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
2 x+2 y=-8 \\
-2 y+2 z=-22 \\
2 x-z=-6
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-3 y-3 z=3 \\
-2 x-2 y=6 \\
3 x-2 z=1
\end{array}\right]
$$

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X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00008XX Matrices02 for No. 9877

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$$
\begin{aligned}
& A=[14], B=[-7], C=\left[\begin{array}{ll}
-8 & -2 \\
-4 & -2
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
2 & -8 \\
-3 & 4
\end{array}\right], E=\left[\begin{array}{rrr}
4 & 2 & -4 \\
-3 & 4 & -3 \\
0 & 3 & 2
\end{array}\right], F=\left[\begin{array}{rrr}
-3 & -2 & 3 \\
2 & 2 & -4 \\
-4 & 0 & 4
\end{array}\right],\left[\begin{array}{l}
m=3 \\
p=4
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{cc}
x & -2 \\
-2 & -4
\end{array}\right]\right)=12\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{ccc}
-4 & 3 & 4 \\
y & 2 & -3 \\
3 & 3 & 2
\end{array}\right]\right)=-85\right], N o 11=\left[G=\left[\begin{array}{rr}
2 & 5 \\
5 & -5
\end{array}\right]\right] \\
& \text { System } 1=\left[\begin{array}{c}
-2 x+5 y=1 \\
-x+y=5
\end{array}\right], \\
& \text {, System } 2=\left[\begin{array}{c}
x-5 y=8 \\
-5 x-2 y=41
\end{array}\right], \\
& \text {, System } 3=\left[\begin{array}{c}
2 x+3 y=-8 \\
y+z=2 \\
-x-z=-8
\end{array}\right], \\
& \text {, System } 4=\left[\begin{array}{c}
3 x-2 y=4 \\
-x-z=-4 \\
3 y-z=23
\end{array}\right]
\end{aligned}
$$
\]

## 

 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00009XX Matrices02 for No. 9911

$$
\text { System } 1=\left[\begin{array}{c}
x-y=10 \\
-x-y=-2
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
-3 x-3 y=15 \\
-3 x+3 y=3
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
3 x-2 z=-2 \\
3 y+z=-17 \\
-2 x-y=15
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
2 x-z=18 \\
x+y=4 \\
3 y-2 z=-8
\end{array}\right]
$$

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X Math@mUT XxXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00010XX Matrices02 for No. 10027

$$
\begin{aligned}
& A=[-13], B=[18], C=\left[\begin{array}{rr}
2 & 6 \\
8 & -8
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
9 & -12 \\
-6 & -8
\end{array}\right], E=\left[\begin{array}{rrr}
4 & -2 & -3 \\
2 & 3 & 2 \\
4 & -2 & 0
\end{array}\right], F=\left[\begin{array}{rr}
-2 & -4 \\
0 & 4 \\
2 & 2
\end{array}\right],\left[\begin{array}{l}
m=3 \\
p=1
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{ll}
x & 3 \\
3 & 4
\end{array}\right]\right)=-17\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
-3 & -2 & y \\
-4 & -4 & -3 \\
4 & -2 & 4
\end{array}\right]\right)=130\right], \text { Noll }=\left[G=\left[\begin{array}{rr}
4 & -4 \\
4 & 4
\end{array}\right]\right]
\end{aligned}
$$



$$
\begin{aligned}
& A=[-18], B=[-15], C=\left[\begin{array}{rr}
4 & 5 \\
-2 & 7
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
10 & 3 \\
-7 & -2
\end{array}\right], E=\left[\begin{array}{rrr}
2 & -2 & -3 \\
4 & -3 & 0 \\
3 & -4 & -3
\end{array}\right], F=\left[\begin{array}{rrr}
-3 & 3 & -4 \\
0 & 3 & -4 \\
-2 & 2 & 4
\end{array}\right],\left[\begin{array}{l}
m=4 \\
p=1
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{rr}
x & -2 \\
3 & 2
\end{array}\right]\right)=10\right], N o 10=\left[\operatorname{det}\left(\left[\begin{array}{ccc}
3 & y & -4 \\
4 & 4 & 4 \\
4 & -2 & -4
\end{array}\right]\right)=-24\right], \text { No11 }=\left[G=\left[\begin{array}{rr}
-4 & -5 \\
-5 & 2
\end{array}\right]\right]
\end{aligned}
$$

## 

 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00011XX Matrices02 for No. 10063

$$
\begin{aligned}
& A=[-18], B=[-7], C=\left[\begin{array}{rr}
5 & -6 \\
-8 & -4
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
4 & 6 \\
2 & -3
\end{array}\right], E=\left[\begin{array}{rrr}
-4 & -2 & -3 \\
-2 & -3 & 0 \\
3 & -3 & 4
\end{array}\right], F=\left[\begin{array}{lll}
-2 & 0 & 4 \\
-4 & 4 & -4 \\
-4 & 2 & -3
\end{array}\right],\left[\begin{array}{l}
m=2 \\
p=4
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{ll}
-4 & 2 \\
-4 & x
\end{array}\right]\right)=24\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
4 & 4 & y \\
2 & 3 & 2 \\
2 & -2 & -3
\end{array}\right]\right)=-20\right], \text { Noll }=\left[G=\left[\begin{array}{rr}
-4 & -2 \\
3 & 3
\end{array}\right]\right]
\end{aligned}
$$

$$
\text { System } 1=\left[\begin{array}{c}
3 x-y=22 \\
5 x-3 y=42
\end{array}\right], \quad \text {, System } 2=\left[\begin{array}{c}
2 x-4 y=20 \\
-2 x-4 y=28
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
3 x+2 y=-13 \\
-2 x+2 z=18 \\
-2 y+2 z=-4
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-3 x+3 z=-9 \\
-y-2 z=2 \\
-2 x-3 y=12
\end{array}\right]
$$

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X Math@mUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00012XX Matrices02 for No. 10120

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$$
\begin{aligned}
& A=[15], B=[13], C=\left[\begin{array}{ll}
5 & 3 \\
4 & 3
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
-9 & -10 \\
-7 & -8
\end{array}\right], E=\left[\begin{array}{lll}
2 & -4 & -4 \\
4 & -3 & -2 \\
0 & -4 & 3
\end{array}\right], F=\left[\begin{array}{rrr}
-4 & 2 & 0 \\
3 & 2 & 2 \\
-2 & -3 & 4
\end{array}\right],\left[\begin{array}{l}
m=3 \\
p=4
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{ll}
-2 & x \\
-4 & -2
\end{array}\right]\right)=12\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
-3 & 4 & 3 \\
2 & -2 & -4 \\
4 & y & 2
\end{array}\right]\right)=-20\right], N o 11=\left[G=\left[\begin{array}{rr}
-4 & 5 \\
5 & 2
\end{array}\right]\right] \\
& \text { System } 1=\left[\begin{array}{c}
x-4 y=31 \\
-x+y=-10
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
-3 x+5 y=-36 \\
-2 x+y=-10
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
-3 x+2 z=2 \\
-x-y=-1 \\
-y+3 z=24
\end{array}\right], \quad, \text { System } 4=\left[\begin{array}{c}
2 x-3 y=2 \\
-x-z=8 \\
-2 y+2 z=2
\end{array}\right]
\end{aligned}
$$
\]

## 

 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00013XX Matrices02 for No. 10367

$$
\begin{aligned}
& A=[-16], B=[-14], C=\left[\begin{array}{rr}
7 & -2 \\
-2 & 7
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
8 & -8 \\
8 & -5
\end{array}\right], E=\left[\begin{array}{rrr}
-2 & -2 & -2 \\
-2 & -4 & 3 \\
-4 & 0 & -4
\end{array}\right], F=\left[\begin{array}{rrr}
2 & -3 & 2 \\
0 & 4 & 3 \\
4 & -2 & -2
\end{array}\right],\left[\begin{array}{l}
m=3 \\
p=4
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{cc}
-4 & -3 \\
x & 4
\end{array}\right]\right)=-28\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
-2 & 3 & 2 \\
-3 & 3 & y \\
2 & 3 & -3
\end{array}\right]\right)=-63\right], \text { Nol1 }=\left[G=\left[\begin{array}{ll}
-2 & 3 \\
-5 & 2
\end{array}\right]\right]
\end{aligned}
$$

$$
\text { System } 1=\left[\begin{array}{c}
-4 x+5 y=-50 \\
-4 x-4 y=4
\end{array}\right], \quad \text {, System } 2=\left[\begin{array}{c}
-2 x-y=8 \\
4 x+y=-14
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
3 x+2 z=-6 \\
-2 y-z=9 \\
2 x+y=-14
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
3 x+3 z=-3 \\
-2 x-2 y=-4 \\
y+3 z=15
\end{array}\right]
$$

xXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX :
X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00014XX Matrices02 for No. 10372

$$
\begin{aligned}
& A=[20], B=[16], C=\left[\begin{array}{rr}
8 & -2 \\
7 & 5
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
12 & 4 \\
9 & 8
\end{array}\right], E=\left[\begin{array}{rrr}
4 & 3 & 2 \\
4 & -2 & -2 \\
-3 & -2 & 0
\end{array}\right], F=\left[\begin{array}{rrr}
-4 & 4 & 3 \\
-4 & -2 & 0 \\
2 & -2 & 4
\end{array}\right],\left[\begin{array}{c}
m=2 \\
p=4
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{cc}
x & -4 \\
-4 & -2
\end{array}\right]\right)=-10\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
3 & 3 & -4 \\
-4 & y & 3 \\
4 & 2 & -3
\end{array}\right]\right)=42\right], \text { Noll }=\left[G=\left[\begin{array}{rr}
-4 & 5 \\
3 & 3
\end{array}\right]\right] \\
& \text { System } 1=\left[\begin{array}{c}
3 x+y=-8 \\
x+4 y=23
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
-4 x+2 y=20 \\
-4 x+y=22
\end{array}\right], \quad \text { System } 3=\left[\begin{array}{c}
2 x-2 y=4 \\
-x-z=-4 \\
-y+z=-8
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
2 x+3 z=14 \\
y+z=-5 \\
3 x+2 y=-2
\end{array}\right]
\end{aligned}
$$

[^3]
## 

 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00015XX Matrices02 for No. 10375

$$
\begin{gathered}
A=[\quad 7], B=[-13], C=\left[\begin{array}{rr}
7 & 7 \\
-4 & -7
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
5 & -7 \\
-2 & 11
\end{array}\right], E=\left[\begin{array}{rrr}
-3 & 0 & 3 \\
-3 & -3 & -2 \\
-4 & -2 & 2
\end{array}\right], F=\left[\begin{array}{rr}
-2 & 3 \\
0 & -2 \\
-3 & -4 \\
-3 & -4
\end{array}\right],\left[\begin{array}{l}
m=3 \\
p=4
\end{array}\right] \\
\text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{ll}
2 & x \\
4 & 4
\end{array}\right]\right)=20\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
-2 & 4 & 3 \\
4 & 4 & -2 \\
y & -3 & -4
\end{array}\right]\right)=132\right], \text { Nol1 }=\left[G=\left[\begin{array}{ll}
-3 & -2 \\
-2 & -2
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
-2 x+y=12 \\
-4 x-5 y=38
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
4 x+2 y=-4 \\
4 x-2 y=-20
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
-3 x-3 z=-12 \\
-y-2 z=-10 \\
-3 x+3 y=-3
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
2 x+3 z=12 \\
-x+y=-7 \\
-3 y-3 z=6
\end{array}\right]
$$

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X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00016XX Matrices02 for No. 10426


$$
\begin{aligned}
& A=[-20], B=[-16], C=\left[\begin{array}{rr}
4 & 6 \\
-3 & -2
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
10 & 3 \\
-7 & -11
\end{array}\right], E=\left[\begin{array}{rrr}
-2 & 3 & -3 \\
2 & 0 & 3 \\
-3 & -4 & 4
\end{array}\right], F=\left[\begin{array}{rrr}
-4 & 4 & -3 \\
-2 & 3 & 0 \\
-4 & 3 & -3
\end{array}\right],\left[\begin{array}{l}
m=3 \\
p=2
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{cc}
x & -4 \\
-3 & -2
\end{array}\right]\right)=-18\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{ccc}
-2 & 4 & y \\
-2 & -4 & -4 \\
2 & -3 & 2
\end{array}\right]\right)=-32\right], \text { No11 }=\left[G=\left[\begin{array}{cc}
-2 & 5 \\
-5 & -2
\end{array}\right]\right] \\
& \text { System } 1=\left[\begin{array}{c}
3 x-5 y=55 \\
-2 x-y=-2
\end{array}\right], \quad \text { System } 2=\left[\begin{array}{c}
5 x+3 y=-25 \\
-x+y=13
\end{array}\right], \quad \text { System } 3=\left[\begin{array}{c}
-3 x+2 y=2 \\
-y+z=8 \\
3 x+z=-9
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-2 x+3 y=-2 \\
-3 x-2 z=0 \\
3 y+2 z=-6
\end{array}\right]
\end{aligned}
$$

## 

 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00017XX Matrices02 for No. 10628

$$
\begin{aligned}
& A=[13], B=[-9], C=\left[\begin{array}{rr}
-7 & -6 \\
7 & -8
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
-9 & -6 \\
4 & -8
\end{array}\right], E=\left[\begin{array}{rrr}
3 & -2 & 2 \\
-2 & 3 & -3 \\
0 & 3 & -4
\end{array}\right], F=\left[\begin{array}{rrr}
4 & 2 & -2 \\
-2 & 3 & 0 \\
3 & -2 & 2
\end{array}\right],\left[\begin{array}{c}
m=3 \\
p=1
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{ll}
4 & x \\
2 & 4
\end{array}\right]\right)=10\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
4 & -4 & -2 \\
2 & 4 & y \\
-2 & -2 & -4
\end{array}\right]\right)=-72\right], \text { Noll }=\left[G=\left[\begin{array}{rr}
-4 & 4 \\
4 & -3
\end{array}\right]\right]
\end{aligned}
$$

$$
\text { System } 1=\left[\begin{array}{l}
3 x+3 y=-15 \\
-x+5 y=-13
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
-3 x+2 y=26 \\
3 x-4 y=-40
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
2 x-3 z=-2 \\
-2 y+2 z=26 \\
-2 x-2 y=-2
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-y-2 z=-7 \\
2 x-3 y=3 \\
-x-z=-8
\end{array}\right]
$$

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X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00018XX Matrices02 for No. 11408

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$$
\begin{aligned}
& A=\left[\begin{array}{ll}
{[ }
\end{array}\right], B=[-7], C=\left[\begin{array}{rr}
-6 & -4 \\
4 & 8
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
-3 & 6 \\
5 & -7
\end{array}\right], E=\left[\begin{array}{rrr}
4 & -3 & -3 \\
-4 & 0 & -4 \\
-3 & -3 & 4
\end{array}\right], F=\left[\begin{array}{rrr}
2 & -2 & 0 \\
-3 & 4 & 3 \\
3 & 2 & 3
\end{array}\right],\left[\begin{array}{l}
m=3 \\
p=1
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{ll}
x & -2 \\
3 & -4
\end{array}\right]\right)=18\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
y & 3 & 2 \\
-3 & -3 & 2 \\
4 & -4 & -2
\end{array}\right]\right)=26\right], N o 11=\left[G=\left[\begin{array}{rr}
2 & 5 \\
3 & -5
\end{array}\right]\right] \\
& \text { System } 1=\left[\begin{array}{c}
-2 x-4 y=34 \\
2 x+2 y=-24
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
-x+4 y=-11 \\
-2 x-4 y=26
\end{array}\right], \quad \text {,System } 3=\left[\begin{array}{c}
y+2 z=0 \\
x+3 z=7 \\
-x+2 y=-10
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
2 x-3 y=10 \\
y+z=-1 \\
2 x+z=13
\end{array}\right]
\end{aligned}
$$

## XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

 $:$X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00019XX Matrices02 for No. 11560

$$
\text { System } 1=\left[\begin{array}{c}
-2 x+3 y=5 \\
x+5 y=43
\end{array}\right], \quad \text {, System } 2=\left[\begin{array}{c}
-5 x+3 y=-28 \\
5 x-4 y=34
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
x+y=-7 \\
-3 y+3 z=-12 \\
2 x+z=-16
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
2 x-z=14 \\
x+y=-2 \\
3 y-2 z=-20
\end{array}\right]
$$

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX :
X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00020XX Matrices02 for No. 11806

$$
\begin{gathered}
A=[9], B=[13], C=\left[\begin{array}{rr}
-8 & -4 \\
4 & -8
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
12 & 10 \\
-3 & -12
\end{array}\right], E=\left[\begin{array}{rrr}
4 & 2 & 2 \\
-2 & -4 & 0 \\
-4 & -2 & -3
\end{array}\right], F=\left[\begin{array}{rrr}
4 & -2 & 2 \\
0 & 4 & -4 \\
4 & 3 & 2
\end{array}\right],\left[\begin{array}{l}
m=1 \\
p=4
\end{array}\right] \\
\text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{cc}
x & 3 \\
-2 & 3
\end{array}\right]\right)=-6\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
3 & y & 4 \\
2 & 4 & -4 \\
3 & -2 & -2
\end{array}\right]\right)=-88\right], \text { Noll }=\left[G=\left[\begin{array}{ll}
3 & -2 \\
2 & -3
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System1 }=\left[\begin{array}{c}
-5 x+5 y=70 \\
-3 x-4 y=0
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
-4 x+3 y=2 \\
2 x+y=-16
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
2 x-z=-6 \\
-x+3 y=-13 \\
-3 y+2 z=10
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-2 x-3 z=-13 \\
2 y+z=-13 \\
3 x+y=-2
\end{array}\right]
$$

x [Page = 0010] xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

$$
\begin{aligned}
& A=[14], B=[9], C=\left[\begin{array}{rr}
3 & 8 \\
-8 & 2
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
11 & -12 \\
5 & 2
\end{array}\right], E=\left[\begin{array}{lll}
4 & -3 & -3 \\
0 & -3 & -3 \\
2 & -2 & 3
\end{array}\right], F=\left[\begin{array}{rrr}
3 & 0 & 3 \\
3 & 4 & 2 \\
-4 & -2 & -4
\end{array}\right],\left[\begin{array}{l}
m=2 \\
p=4
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{cc}
-2 & -3 \\
4 & x
\end{array}\right]\right)=8\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{ccc}
-2 & 3 & -4 \\
-3 & 3 & y \\
3 & -4 & -4
\end{array}\right]\right)=-22\right], \text { No11 }=\left[G=\left[\begin{array}{rr}
5 & 5 \\
5 & -4
\end{array}\right]\right]
\end{aligned}
$$

## 

 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00021XX Matrices02 for No.12219

$$
\text { System } 1=\left[\begin{array}{c}
3 x+4 y=38 \\
4 x-2 y=-8
\end{array}\right], \quad \text {, System } 2=\left[\begin{array}{c}
-3 x+4 y=-9 \\
-5 x+4 y=1
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
-2 y-z=-16 \\
2 x+3 z=12 \\
-x+y=8
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-x+2 z=-10 \\
2 x+y=10 \\
y+2 z=-4
\end{array}\right]
$$

xXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX :
X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00022XX Matrices02 for No. 12954

$$
\begin{gathered}
A=[-12], B=[-21], C=\left[\begin{array}{rr}
3 & -2 \\
-6 & 6
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
-12 & -7 \\
-9 & -9
\end{array}\right], E=\left[\begin{array}{rrr}
0 & -3 & -4 \\
-2 & -3 & 2 \\
4 & 4 & 3
\end{array}\right], F=\left[\begin{array}{rrr}
-4 & 4 & -2 \\
4 & 2 & -2 \\
-3 & 0 & 4
\end{array}\right],\left[\begin{array}{c}
m=2 \\
p=1
\end{array}\right] \\
N o 09=\left[\operatorname{det}\left(\left[\begin{array}{rr}
-4 & 4 \\
3 & x
\end{array}\right]\right)=0\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
4 & -3 & 3 \\
-2 & 2 & 2 \\
y & 2 & 4
\end{array}\right]\right)=4\right], \text { Noll }=\left[G=\left[\begin{array}{rr}
3 & -4 \\
-2 & -3
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
-3 x-y=17 \\
2 x+y=-12
\end{array}\right], \quad \text {, System } 2=\left[\begin{array}{c}
-2 x+5 y=26 \\
4 x+y=-8
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
x-y=-9 \\
-3 y+z=-16 \\
2 x+z=-4
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-x+y=-1 \\
3 y-2 z=-4 \\
2 x-z=1
\end{array}\right]
$$

[^4]:
$:$
\[

$$
\begin{aligned}
& A=[-8], B=[-21], C=\left[\begin{array}{rr}
7 & -7 \\
2 & 6
\end{array}\right], \mathrm{D}=\left[\begin{array}{ll}
9 & 11 \\
4 & 12
\end{array}\right], E=\left[\begin{array}{rrr}
4 & 4 & -3 \\
0 & -3 & 3 \\
4 & 2 & 3
\end{array}\right], F=\left[\begin{array}{rrr}
3 & 0 & -4 \\
3 & 2 & 3 \\
2 & 3 & -2
\end{array}\right],\left[\begin{array}{c}
m=1 \\
p=2
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{rr}
-3 & -2 \\
x & 3
\end{array}\right]\right)=-5\right], N o 10=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
-4 & 4 & 4 \\
4 & y & 4 \\
3 & 2 & 3
\end{array}\right]\right)=160\right], N o 11=\left[G=\left[\begin{array}{rr}
-3 & 2 \\
-2 & -3
\end{array}\right]\right]
\end{aligned}
$$
\]

## 

 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00023XX Matrices02 for No. 12964
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx :
X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00024XX Matrices02 for No. 12971

$$
\begin{gathered}
A=[-14], B=[-14], C=\left[\begin{array}{rr}
-5 & -5 \\
6 & 6
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
7 & -2 \\
8 & 8
\end{array}\right], E=\left[\begin{array}{rrr}
2 & -3 & 0 \\
4 & 2 & 3 \\
-4 & -4 & 3
\end{array}\right], F=\left[\begin{array}{rrr}
4 & 0 & 3 \\
-4 & -4 & 3 \\
4 & -3 & -2
\end{array}\right],\left[\begin{array}{l}
m=2 \\
p=3
\end{array}\right] \\
N o 09=\left[\operatorname{det}\left(\left[\begin{array}{ll}
3 & 2 \\
2 & x
\end{array}\right]\right)=8\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{lll}
3 & 2 & 4 \\
2 & y & -4 \\
2 & -2 & -3
\end{array}\right]\right)=-78\right], \text { No11 }=\left[G=\left[\begin{array}{lr}
-2 & -3 \\
-5 & 3
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
-4 x+4 y=-44 \\
-2 x-y=-10
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
x+4 y=-8 \\
5 x-4 y=56
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
3 y-2 z=-4 \\
3 x+3 z=-9 \\
-x+2 y=-16
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
2 x+2 z=-2 \\
-2 x+y=17 \\
y-2 z=-1
\end{array}\right]
$$

x [Page = 0012] xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

$$
\begin{aligned}
& A=[-14], B=[13], C=\left[\begin{array}{rr}
3 & 8 \\
-4 & -5
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
12 & 6 \\
7 & -4
\end{array}\right], E=\left[\begin{array}{rrr}
4 & -2 & 3 \\
4 & 0 & 3 \\
2 & 4 & -4
\end{array}\right], F=\left[\begin{array}{rrr}
2 & 4 & 3 \\
0 & -3 & 3 \\
-2 & 2 & 4
\end{array}\right],\left[\begin{array}{l}
m=1 \\
p=2
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{cc}
-4 & x \\
-3 & -4
\end{array}\right]\right)=4\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{ccc}
y & -3 & -3 \\
-3 & -2 & 3 \\
2 & -4 & 3
\end{array}\right]\right)=-69\right], \text { No11 }=\left[G=\left[\begin{array}{cc}
-3 & 3 \\
-3 & -5
\end{array}\right]\right] \\
& \text { System } 1=\left[\begin{array}{c}
-3 x-3 y=6 \\
-2 x-y=-2
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
-5 x+3 y=25 \\
-x+5 y=-17
\end{array}\right], \quad \text { System } 3=\left[\begin{array}{c}
3 y-2 z=3 \\
x-3 z=25 \\
-2 x-3 y=-5
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-3 x-2 z=0 \\
-x-3 y=13 \\
-y-3 z=14
\end{array}\right]
\end{aligned}
$$

## 

 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00025XX Matrices02 for No. 13023

$$
\begin{gathered}
A=[-12], B=[23], C=\left[\begin{array}{rr}
-2 & 4 \\
5 & 2
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
3 & 11 \\
-3 & 6
\end{array}\right], E=\left[\begin{array}{rrr}
-4 & -3 & -3 \\
0 & -2 & 2 \\
4 & -4 & -3
\end{array}\right], F=\left[\begin{array}{rrr}
3 & 0 & 2 \\
-2 & 4 & 2 \\
2 & -4 & -3
\end{array}\right],\left[\begin{array}{c}
m=4 \\
p=1
\end{array}\right] \\
\text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{cc}
-3 & x \\
-4 & -4
\end{array}\right]\right)=4\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
9 & -2 & 2 \\
-2 & -3 & -4 \\
2 & -4 & 4
\end{array}\right]\right)=112\right], \text { Nol1 }=\left[G=\left[\begin{array}{rr}
-3 & 4 \\
-5 & -3
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
5 x+5 y=-45 \\
x+3 y=-17
\end{array}\right], \quad \text {, System } 2=\left[\begin{array}{c}
3 x+2 y=-11 \\
2 x+5 y=0
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
-2 y-z=11 \\
-x+2 y=-2 \\
3 x-3 z=3
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-3 x-y=-21 \\
-x+2 z=1 \\
y-2 z=0
\end{array}\right]
$$

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx :
X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00026XX Matrices02 for No. 13033


$$
\begin{aligned}
& A=[15], B=[-16], C=\left[\begin{array}{rr}
-3 & -2 \\
-3 & 2
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
-4 & 7 \\
8 & 8
\end{array}\right], E=\left[\begin{array}{rrr}
3 & -4 & 4 \\
2 & 2 & -4 \\
4 & 3 & 0
\end{array}\right], F=\left[\begin{array}{rrr}
2 & -2 & -3 \\
4 & -4 & -4 \\
0 & -2 & 2
\end{array}\right],\left[\begin{array}{c}
m=2 \\
p=1
\end{array}\right] \\
& N o 09=\left[\operatorname{det}\left(\left[\begin{array}{rr}
3 & 2 \\
x & -4
\end{array}\right]\right)=-16\right], N o 10=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
y & 3 & -3 \\
4 & 3 & 2 \\
-4 & -4 & 4
\end{array}\right]\right)=20\right], N o 11=\left[G=\left[\begin{array}{rr}
-2 & -3 \\
2 & -4
\end{array}\right]\right] \\
& \text { System1 }=\left[\begin{array}{c}
-5 x-2 y=31 \\
-2 x-5 y=4
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
3 x-5 y=9 \\
x-y=5
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
-2 x+2 y=6 \\
x-z=9 \\
y-3 z=20
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
3 x+y=7 \\
-2 x+2 z=-16 \\
-2 y+3 z=7
\end{array}\right]
\end{aligned}
$$

## 

 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00027XX Matrices02 for No. 13197

$$
\begin{gathered}
A=[-19], B=[-18], C=\left[\begin{array}{rr}
3 & -6 \\
4 & 2
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
-11 & -6 \\
-4 & -3
\end{array}\right], E=\left[\begin{array}{rrr}
0 & -2 & -4 \\
-3 & 3 & -3 \\
-3 & 3 & 2
\end{array}\right], F=\left[\begin{array}{rrr}
-2 & -2 & 0 \\
2 & 4 & -2 \\
-2 & 3 & -2
\end{array}\right],\left[\begin{array}{l}
m=2 \\
p=3
\end{array}\right] \\
N o 09=\left[\operatorname{det}\left(\left[\begin{array}{ll}
-2 & -2 \\
-3 & x
\end{array}\right]\right)=-2\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
3 & 2 & -2 \\
-3 & -2 & -2 \\
y & 2 & -4
\end{array}\right]\right)=0\right], \text { Noll }=\left[G=\left[\begin{array}{rr}
2 & 4 \\
2 & -2
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
x+5 y=-3 \\
-4 x-4 y=-20
\end{array}\right], \quad, \quad \text { System } 2=\left[\begin{array}{c}
-5 x-y=-35 \\
x-5 y=33
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
x+2 z=2 \\
-2 x+y=12 \\
y-2 z=-14
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-3 x-z=-11 \\
-2 y+3 z=3 \\
2 x-3 y=-14
\end{array}\right]
$$

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX :
X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00028XX Matrices02 for No. 13907

$$
\begin{gathered}
A=[-9], B=[-22], C=\left[\begin{array}{rr}
2 & 2 \\
-5 & -2
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
12 & 11 \\
6 & 7
\end{array}\right], E=\left[\begin{array}{rrr}
4 & 4 & -4 \\
-4 & -2 & 4 \\
2 & -4 & 0
\end{array}\right], F=\left[\begin{array}{lll}
3 & -4 & 2 \\
4 & -3 & 3 \\
0 & -2 & 2
\end{array}\right],\left[\begin{array}{l}
m=3 \\
p=2
\end{array}\right] \\
\text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{ll}
-3 & -2 \\
-4 & x
\end{array}\right]\right)=-20\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{lll}
3 & 4 & -3 \\
4 & -3 & -3 \\
3 & y & -4
\end{array}\right]\right)=49\right], N o 11=\left[G=\left[\begin{array}{rr}
4 & 3 \\
-3 & 2
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
-2 x+2 y=-4 \\
x+y=12
\end{array}\right], \quad \text {, System } 2=\left[\begin{array}{c}
-5 x-y=-20 \\
4 x+3 y=27
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
y-2 z=2 \\
-x-3 y=-13 \\
2 x-3 z=-16
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
x-2 y=1 \\
2 x+2 z=6 \\
-2 y-3 z=-18
\end{array}\right]
$$



## 

 :X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00029XX Matrices02 for No. 13991

$$
\begin{gathered}
A=[20], B=[19], C=\left[\begin{array}{ll}
7 & 2 \\
2 & 6
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
-8 & -3 \\
4 & -2
\end{array}\right], E=\left[\begin{array}{rrr}
4 & 3 & 4 \\
0 & 4 & 2 \\
-2 & -3 & 4
\end{array}\right], F=\left[\begin{array}{rrr}
4 & 3 & -3 \\
-3 & 2 & 0 \\
-3 & 4 & 2
\end{array}\right],\left[\begin{array}{l}
m=1 \\
p=3
\end{array}\right] \\
\text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{rr}
x & 3 \\
-2 & -2
\end{array}\right]\right)=-2\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
-4 & y & -3 \\
3 & -4 & -3 \\
-4 & 4 & -3
\end{array}\right]\right)=0\right], \text { Noll }=\left[G=\left[\begin{array}{rr}
2 & -5 \\
2 & 5
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{l}
-3 x-3 y=-9 \\
-5 x+2 y=27
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{l}
x+2 y=15 \\
x-2 y=-1
\end{array}\right], \quad, \text { System } 3=\left[\begin{array}{c}
2 x-y=-1 \\
-2 x-z=-12 \\
-3 y+z=-7
\end{array}\right], \quad, \quad \text { System } 4=\left[\begin{array}{c}
-y-3 z=-1 \\
-x-2 y=-8 \\
2 x+3 z=-18
\end{array}\right]
$$

xXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX :
X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM/1-6600311-00030XX Matrices02 for No. 14005

$$
\begin{gathered}
A=[-18], B=[-20], C=\left[\begin{array}{rr}
3 & 3 \\
6 & -5
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
7 & 7 \\
-9 & 11
\end{array}\right], E=\left[\begin{array}{lll}
-2 & 2 & 3 \\
-4 & 3 & 3 \\
-2 & 3 & 0
\end{array}\right], F=\left[\begin{array}{rrr}
3 & 3 & 3 \\
0 & 4 & -3 \\
-4 & -3 & -3
\end{array}\right],\left[\begin{array}{l}
m=1 \\
p=2
\end{array}\right] \\
\text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{rr}
3 & -3 \\
x & 2
\end{array}\right]\right)=0\right], \text { No10 }=\left[\operatorname{det}\left(\left[\begin{array}{rrr}
-4 & 3 & -4 \\
4 & y & -4 \\
4 & -3 & -4
\end{array}\right]\right)=-32\right], \text { No11 }=\left[G=\left[\begin{array}{rr}
2 & 2 \\
-2 & 2
\end{array}\right]\right]
\end{gathered}
$$

$$
\text { System } 1=\left[\begin{array}{c}
-4 x+3 y=-8 \\
5 x-4 y=12
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
3 x+3 y=6 \\
4 x+y=-13
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
-2 x-z=-10 \\
-2 x-3 y=-10 \\
3 y+z=-12
\end{array}\right], \quad \text {, System } 4=\left[\begin{array}{c}
-x-3 z=-8 \\
x-3 y=-25 \\
y-z=1
\end{array}\right]
$$


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X Math@MUT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXM5/1-6600311-00031XX Matrices02 for No. 14157

$$
\begin{aligned}
& A=[14], B=[20], C=\left[\begin{array}{ll}
-6 & -7 \\
-5 & -6
\end{array}\right], \mathrm{D}=\left[\begin{array}{rr}
12 & -9 \\
11 & 6
\end{array}\right], E=\left[\begin{array}{rrr}
4 & -4 & -4 \\
-3 & 3 & -3 \\
-2 & -4 & 0
\end{array}\right], F=\left[\begin{array}{rrr}
-2 & 3 & 0 \\
4 & -3 & 3 \\
3 & -4 & -4
\end{array}\right],\left[\begin{array}{l}
m=4 \\
p=2
\end{array}\right] \\
& \text { No09 }=\left[\operatorname{det}\left(\left[\begin{array}{cc}
-3 & 2 \\
x & 2
\end{array}\right]\right)=-2\right], N o 10=\left[\operatorname{det}\left(\left[\begin{array}{lll}
3 & -4 & y \\
4 & -3 & 3 \\
4 & -4 & 4
\end{array}\right]\right)=24\right], N o 11=\left[G=\left[\begin{array}{rr}
3 & 3 \\
-3 & -5
\end{array}\right]\right] \\
& \text { System } 1=\left[\begin{array}{c}
4 x+y=-22 \\
-5 x+2 y=34
\end{array}\right], \quad, \text { System } 2=\left[\begin{array}{c}
3 x-3 y=12 \\
-5 x+4 y=-12
\end{array}\right], \quad \text {, System } 3=\left[\begin{array}{c}
2 y+3 z=-9 \\
-3 x+2 y=3 \\
-3 x+2 z=-23
\end{array}\right], \quad, \text { System } 4=\left[\begin{array}{c}
-3 x+z=-1 \\
y+z=-11 \\
x+2 y=-10
\end{array}\right]
\end{aligned}
$$

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