

Sample

Choose the correct answer.

- The focus of the parabola $(x + 2)^2 = 4(y - 2)$:
a) F(-2,1) b) F(2,-1) c) F(-2,3) d) F(-1,5)
- The focus of the parabola $(x - 2)^2 = -4(y + 2)$:
a) F(-2,-1) b) F(2,1) c) F(-2,3) d) F(2,-3)
- The directrix of the parabola $(x + 2)^2 = 4(y - 2)$:
a) $y=1$ b) $x=1$ c) $y=-1$ d) $x=-1$
- The directrix of the parabola $(x - 2)^2 = 4(y - 3)$:
a) $y=2$ b) $x=1$ c) $y=-2$ d) $x=0$
- The center of the hyperbola $\frac{(x+3)^2}{3} - \frac{(y-4)^2}{4} = 1$:
a) P(-3,4) b) P(3,4) c) P(3,-4) d) P(-3,-4)
- The center of the hyperbola $\frac{(y-1)^2}{3} - \frac{(x-5)^2}{4} = 1$:
a) P(5,1) b) P(1,5) c) P(3,4) d) P(-1,-5)
- The equation $2x^2 - 4y^2 - 16y - 50 = 0$ defines
a) line b) parabola c) ellipse d) hyperbola
- The equation $3x^2 + 2y^2 - 64y - 10 = 0$ defines
a) line b) parabola c) ellipse d) hyperbola

- The equation $2y^2 - 4y + 8x - 10 = 0$ defines

a) line b) parabola c) ellipse d) hyperbola

- The equation $2y^2 - 4y + 8 = 10$ defines

e) line f) parabola g) ellipse h) hyperbola

- If $A = \begin{bmatrix} 5 & 1 \\ -3 & 1 \end{bmatrix}$ and $B = \begin{bmatrix} -4 & 1 \\ 3 & -3 \end{bmatrix}$, then $2A + 3B$ is equal to:

a) $\begin{bmatrix} -2 & 5 \\ 3 & -7 \end{bmatrix}$ b) $\begin{bmatrix} -1 & 5 \\ 4 & -3 \end{bmatrix}$ c) $\begin{bmatrix} -2 & 5 \\ -3 & 3 \end{bmatrix}$ d) $\begin{bmatrix} 1 & 1 \\ -1 & 0 \end{bmatrix}$

- If $A = \begin{bmatrix} 4 & 5 \\ 1 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} 2 & 2 \\ -1 & 3 \end{bmatrix}$, then $2A - 5B$ is equal to:

a) $\begin{bmatrix} 2 & 5 \\ 7 & 9 \end{bmatrix}$ b) $\begin{bmatrix} -2 & -10 \\ 7 & -9 \end{bmatrix}$ c) $\begin{bmatrix} -2 & -10 \\ -3 & -3 \end{bmatrix}$ d) $\begin{bmatrix} 2 & 10 \\ -1 & 0 \end{bmatrix}$

- If $A = \begin{bmatrix} 2 & 5 & 3 \\ 4 & 3 & 4 \\ 3 & 2 & 2 \end{bmatrix}$, then $\det(A)$ is equal to:

a) -20 b) 13 c) 5 d) 0

- If $A = \begin{bmatrix} 1 & 7 & 5 \\ 2 & 2 & -3 \\ 4 & 9 & 1 \end{bmatrix}$, then $\det(A)$ is equal to:

a) 0 b) -19 c) 19 d) 1