

Conics Review

Use the information provided to write the standard form equation of each circle.

1) Center: $(9, -12)$

Radius: 6

A) $(x - 11)^2 + (y + 9)^2 = 36$

B) $(x + 7)^2 + (y - 13)^2 = 36$

C) $(x - 9)^2 + (y + 12)^2 = 36$

D) $(x + 11)^2 + (y - 11)^2 = 16$

2) Center: $(-3, -9)$

Area: 9π

A) $(x + 2)^2 + (y - 8)^2 = 81$

B) $(x - 11)^2 + (y - 5)^2 = 9$

C) $(x + 3)^2 + (y + 9)^2 = 9$

D) $(x - 3)^2 + (y + 9)^2 = 9$

3) Center: $(-2, 13)$

Point on Circle: $(0, 8)$

A) $(x + 2)^2 + (y - 13)^2 = 29$

B) $(x + 13)^2 + (y + 2)^2 = 841$

C) $(x + 2)^2 + (y - 13)^2 = 9$

D) $(x + 12)^2 + (y - 4)^2 = 841$

4) Center: $(15, -1)$

Circumference: 4π

A) $(x + 3)^2 + (y + 13)^2 = 4$

B) $(x + 15)^2 + (y - 1)^2 = 1$

C) $(x - 15)^2 + (y + 1)^2 = 4$

D) $x^2 + (y - 17)^2 = 4$

5) $x^2 + y^2 + 22x + 10y + 130 = 0$

A) $(x + 11)^2 + (y + 5)^2 = 16$

B) $(x + 11)^2 + (y + 5)^2 = 256$

C) $(x + 4)^2 + (y - 12)^2 = 16$

D) $(x - 5)^2 + (y + 11)^2 = 16$

6) $x^2 + y^2 + 28x - 12y + 210 = 0$

A) $(x + 14)^2 + (y - 6)^2 = 22$

B) $(x - 6)^2 + (y - 14)^2 = 1$

C) $(x - 6)^2 + (y - 14)^2 = 22$

D) $(x - 14)^2 + (y - 6)^2 = 22$

Use the information provided to write the vertex form equation of each parabola.

7) Vertex: $(5, -4)$, Focus: $(5, -\frac{17}{4})$

A) $y = 3(x - 5)^2 + 4$

B) $y = -2(x - 5)^2 - 4$

C) $x = -(y + 5)^2 - 4$

D) $y = -(x - 5)^2 - 4$

8) Vertex: $(-1, -8)$, Focus: $(-\frac{5}{4}, -8)$

A) $x = (y - 2)^2 + 10$

B) $x = (y - 1)^2 - 8$

C) $x = -(y + 8)^2 - 1$

D) $x = 3(y + 8)^2 - 1$

9) Focus: $(10, -\frac{1}{4})$, Directrix: $y = \frac{25}{4}$

A) $x = \frac{1}{13}(y - 3)^2 + 10$

B) $y = -\frac{1}{13}(x - 10)^2 + 3$

C) $y = \frac{1}{13}(x - 10)^2 + 3$

D) $x = -\frac{1}{13}(y - 3)^2 + 10$

10) Focus: $(10, \frac{15}{8})$, Directrix: $y = \frac{17}{8}$

A) $y = -2(x + 10)^2 - 2$

B) $y = 2(x - 10)^2 - 2$

C) $y = 2(x - 9)^2 - 1$

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