

Conic Review #1

Name the conic section and put it in standard form.

- $2x^2 + y + 1 = 12x - 2y^2$
- $6y - x + y^2 - 2 = 0$
- $8x - y^2 = 2x^2 + 2y + 3$
- $y^2 - 2x^2 + 4x - 8y + 6 = 0$

Write the equation of the conic described in standard form.

- A circle with radius 3 and center (4,-2).
- An ellipse with vertex (1,-5), co-vertex (-1,-2) and center (1,-2).
- A standard parabola that opens left and has a vertex (3,6).
- A hyperbola with vertices (-1,2) and (-1,4) and co-vertices (1,3) and (-3,3).
- A circle with endpoints of a diameter (-4,6) and (2,10).

Simplify.

- i^{75}
- $\frac{2+x^{-1}}{2-x^{-1}}$
- $\sqrt[3]{48w^9x^2y^5z^{22}}$
- $\sqrt[3]{\frac{3a^8}{16x}}$

Conic Review #1

Name the conic section and put it in standard form.

- $2x^2 + y + 1 = 12x - 2y^2$
- $6y - x + y^2 - 2 = 0$
- $8x - y^2 = 2x^2 + 2y + 3$
- $y^2 - 2x^2 + 4x - 8y + 6 = 0$

Write the equation of the conic described in standard form.

- A circle with radius 3 and center (4,-2).
- An ellipse with vertex (1,-5), co-vertex (-1,-2) and center (1,-2).
- A standard parabola that opens left and has a vertex (3,6).
- A hyperbola with vertices (-1,2) and (-1,4) and co-vertices (1,3) and (-3,3).
- A circle with endpoints of a diameter (-4,6) and (2,10).

Simplify.

- i^{75}
- $\frac{2+x^{-1}}{2-x^{-1}}$
- $\sqrt[3]{48w^9x^2y^5z^{22}}$
- $\sqrt[3]{\frac{3a^8}{16x}}$

AA2 wk 13 Block

1. C; $(x-3)^2 + \left(y + \frac{1}{4}\right)^2 = \frac{137}{16}$

2. P; $x + 11 = (y + 3)^2$

3. E; $\frac{(x-2)^2}{3} + \frac{(y+1)^2}{6} = 1$

4. H; $\frac{(y-4)^2}{8} - \frac{(x-1)^2}{4} = 1$

5. $(x-4)^2 + (y+2)^2 = 9$

6. $\frac{(x-1)^2}{4} + \frac{(y+2)^2}{9} = 1$

7. $x - 3 = -(y - 6)^2$

8. $(y-3)^2 - \frac{(x+1)^2}{4} = 1$

9. $(x+1)^2 + (y-8)^2 = 13$

10. $-i$

11. $\frac{2x+1}{2x-1}$

12. $2w^3yz^7\sqrt[3]{6x^2y^2z}$

13. $\frac{a^2\sqrt[3]{12a^2x^2}}{4x}$

AA2 wk 13 Block

1. C; $(x-3)^2 + \left(y + \frac{1}{4}\right)^2 = \frac{137}{16}$

2. P; $x + 11 = (y + 3)^2$

3. E; $\frac{(x-2)^2}{3} + \frac{(y+1)^2}{6} = 1$

4. H; $\frac{(y-4)^2}{8} - \frac{(x-1)^2}{4} = 1$

5. $(x-4)^2 + (y+2)^2 = 9$

6. $\frac{(x-1)^2}{4} + \frac{(y+2)^2}{9} = 1$

7. $x - 3 = -(y - 6)^2$

8. $(y-3)^2 - \frac{(x+1)^2}{4} = 1$

9. $(x+1)^2 + (y-8)^2 = 13$

10. $-i$

11. $\frac{2x+1}{2x-1}$

12. $2w^3yz^7\sqrt[3]{6x^2y^2z}$

13. $\frac{a^2\sqrt[3]{12a^2x^2}}{4x}$