

Q4HW2 - All work on looseleaf.

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

1) $x^2 + 9y^2 - 14x + 72y + 49 = 0$

2) $9x^2 + 16y^2 + 90x + 32y - 335 = 0$

3) $x^2 + 4y^2 - 6x + 48y + 149 = 0$

4) $x^2 + 4y^2 - 18x + 72y + 305 = 0$

Identify the center and vertices of each ellipse. Then sketch the graph.

5) $\frac{(x-1)^2}{36} + \frac{(y+1)^2}{9} = 1$

6) $\frac{(x+1)^2}{9} + \frac{(y-2)^2}{16} = 1$

7) $\frac{(x+1)^2}{36} + \frac{y^2}{4} = 1$

8) $(x-1)^2 + \frac{(y+\frac{1}{2})^2}{25} = 1$

9) $\frac{(x+1)^2}{25} + \frac{(y+1)^2}{10} = 1$

10) $\frac{(x-3)^2}{5} + \frac{(y-1)^2}{15} = 1$

Classify each conic section.

11) $2y^2 + x + 20y + 47 = 0$

12) $16x^2 - 25y^2 - 400 = 0$

13) $25x^2 + 9y^2 - 50x + 18y - 191 = 0$

14) $x^2 + 10x + 2y + 15 = 0$

15) $x^2 + 36y^2 - 144y + 108 = 0$

16) $x^2 + y^2 - 2x - 8y + 8 = 0$

17) $x^2 - 16y^2 + 2x + 128y - 271 = 0$

18) $3x^2 + 30x + 4y + 95 = 0$