CONICS TEST REVIEW

1.   Graph: $(x - 2)^2 + (y + 1)^2 = 9$

2.   Write the equation in standard form: $6x^2 - 12x + 6y^2 + 36y = 36$

3.   Graph: $\dfrac{(x-3)^2}{16} + \dfrac{(y+2)^2}{25} = 1$

4.   Write in standard form: $4x^2 + 9y^2 - 8x - 36y + 4 = 0$

5.   Write the equation for the ellipse with foci (0, 2) and (8, 2) and semi-major axis = 6.

6.   Graph : $\dfrac{(x+3)^2}{25} - \dfrac{(y-4)^2}{49} = 1$

7.   Write in standard form: $25y^2 - 9x^2 - 100y - 72x - 269 = 0$

8.   Write the equation for the hyperbola that has a conjugate axis that is 6 units and vertices at (-3, 0) and (5, 0).

9.   Write in STANDARD form: $y^2 - 4x + 2y + 5 = 0$

10.   Graph: $y + 4 = \dfrac{-1}{8} (x - 3)^2$

11.   Write the equation of the parabola with focus at (-2, 1) and directrix x = 2.

12.   Identify the following:

a) $y^2 - 8x = -8$ b) $2x^2 + 4y^2 = 0$

c) $4xy = 9$ d) $(x - 2)^2 + (y - 3)^2 = 0$

e) $x^2 - 6x + y^2 - 12y + 41 = 0$ f) $2x^2 - 3y^2 = 0$

g) $y^2 - 2x + 10y + 27 = 0$ h) $x^2 + 4x + (y-6)^2 = 0$

i) $2x^2 - 13y^2 + 5 = 0$ j) $16(x - 3)^2 + 81(y + 4)^2 = 1296$

13.   Graph **b**, **c**, **d**, and **f** from above.