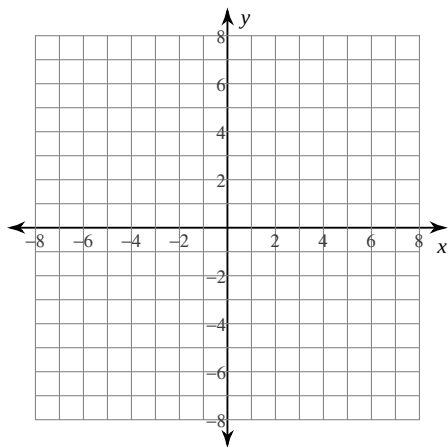


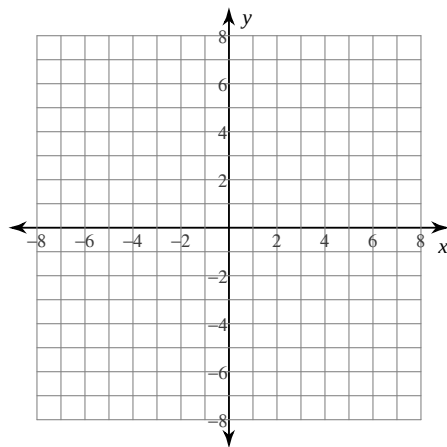
Graphing Ellipses Given the General Equation

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

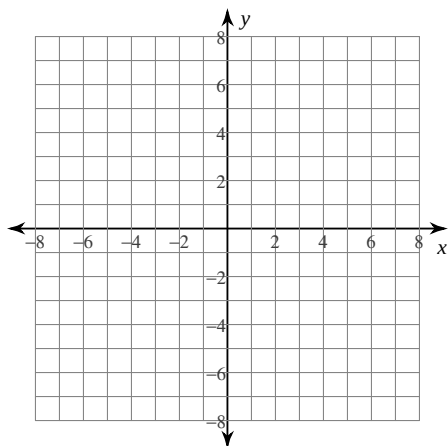
1) $16x^2 + 9y^2 - 128x + 54y + 193 = 0$



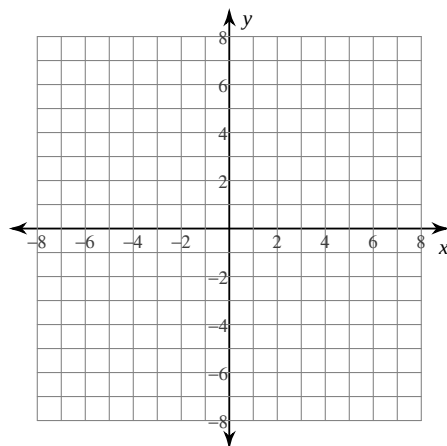
2) $49x^2 + 9y^2 - 98x - 392 = 0$



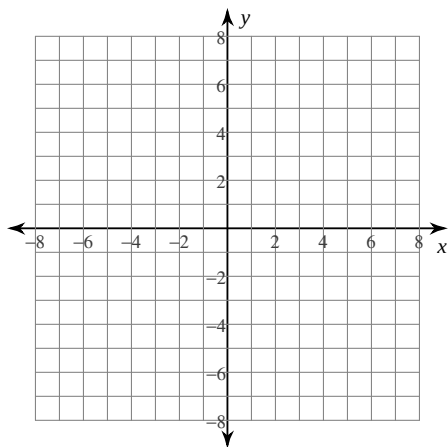
3) $4x^2 + y^2 - 32x - 2y + 29 = 0$



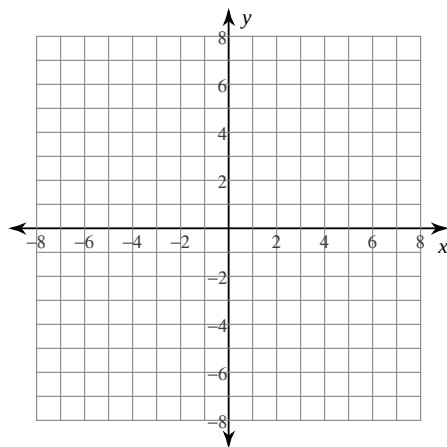
4) $16x^2 + y^2 + 32x = 0$



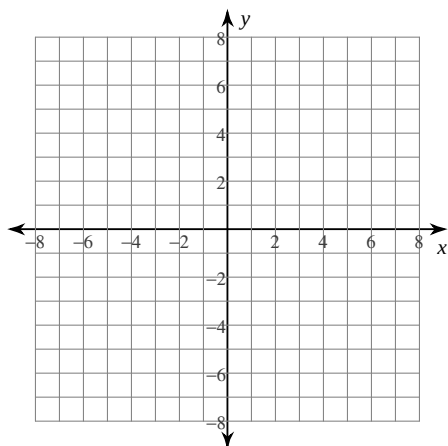
$$5) \ 5x^2 + 4y^2 - 20x - 16y - 64 = 0$$



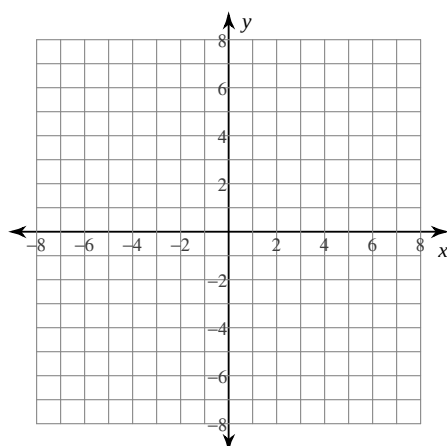
$$6) \ 25x^2 + 4y^2 - 200x - 8y + 304 = 0$$



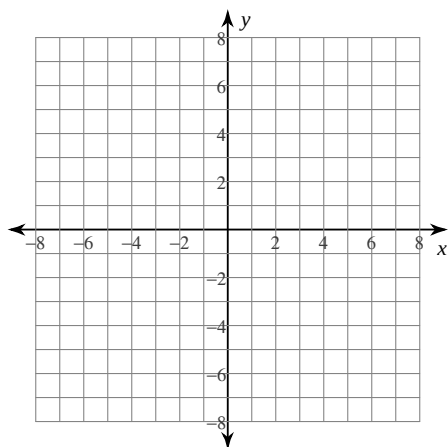
$$7) \ 4x^2 + y^2 + 24x - 4y + 36 = 0$$



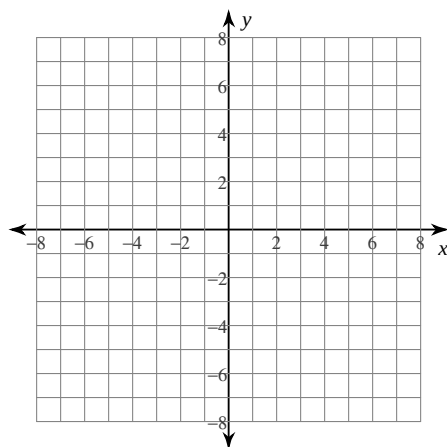
$$8) \ 36x^2 + 16y^2 + 180x - 128y + 337 = 0$$



$$9) \ x^2 + 16y^2 - 2x - 15 = 0$$

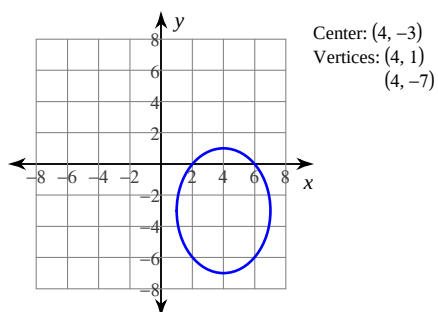


$$10) \ 9x^2 + 4y^2 - 36x + 8y - 104 = 0$$

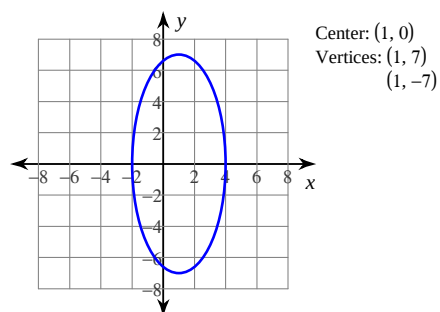


Answers to Graphing Ellipses Given the General Equation

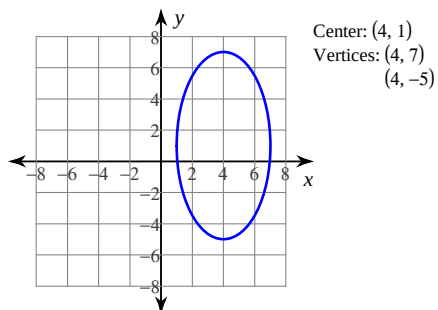
1)



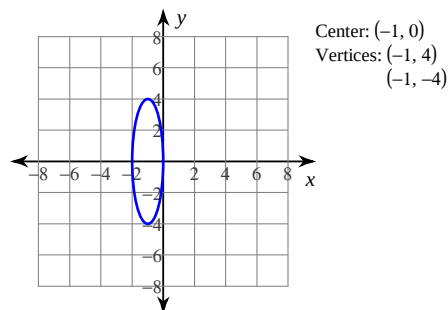
2)



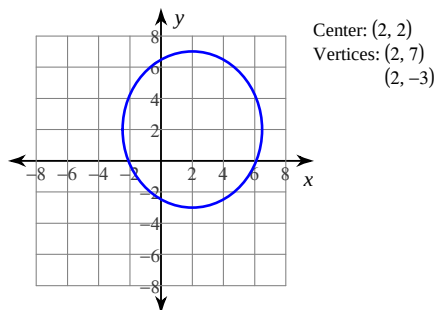
3)



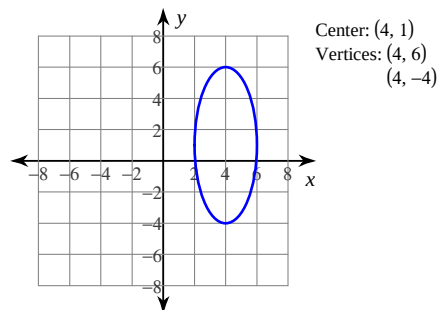
4)



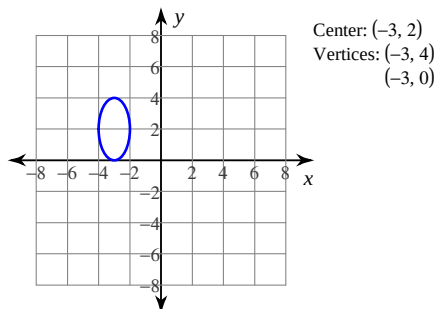
5)



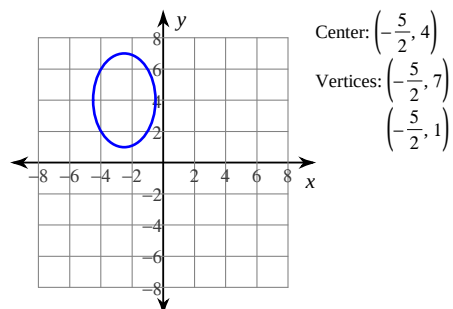
6)



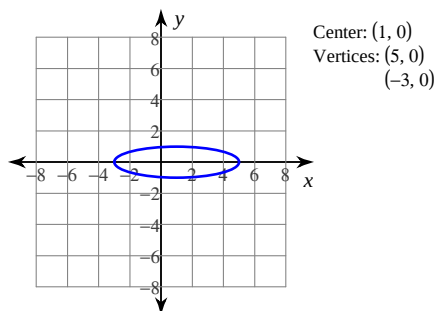
7)



8)



9)



10)

