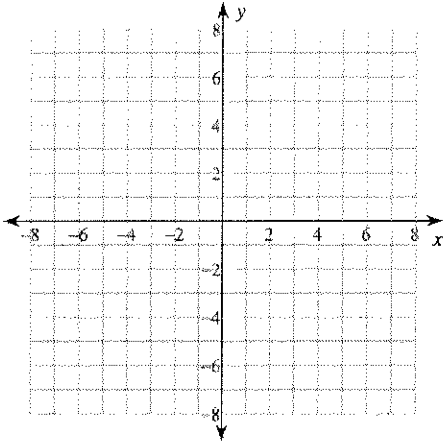


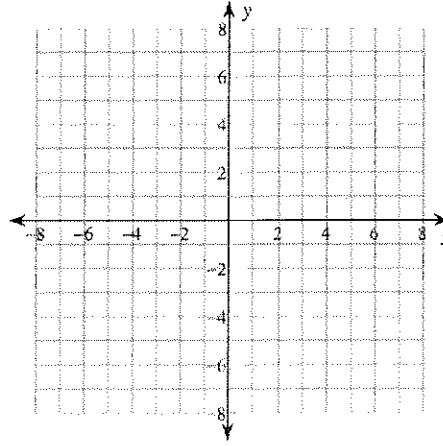
Conic Sections - Parabola

Identify the vertex, focus, axis of symmetry, directrix, ~~length of the latus rectum, intercepts on the axis parallel to the axis of symmetry, and intercepts on the axis perpendicular to the axis of symmetry of each.~~
Then sketch the graph.

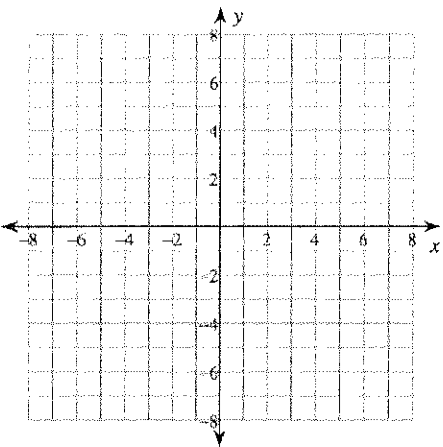
1) $x = (y - 4)^2 - 1$



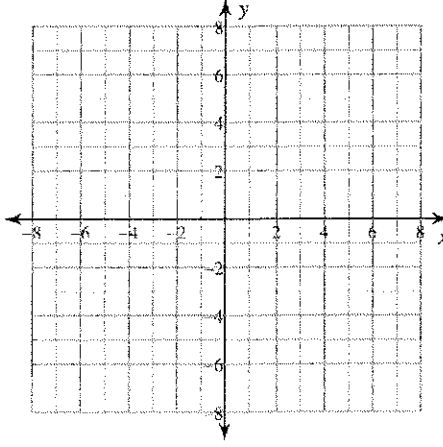
2) $x = (y + 2)^2 - 1$



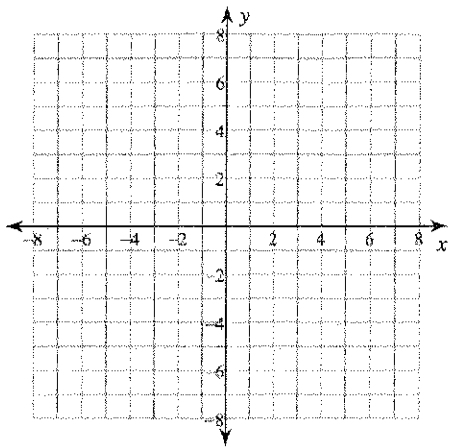
3) $x = -(y - 5)^2 + 1$



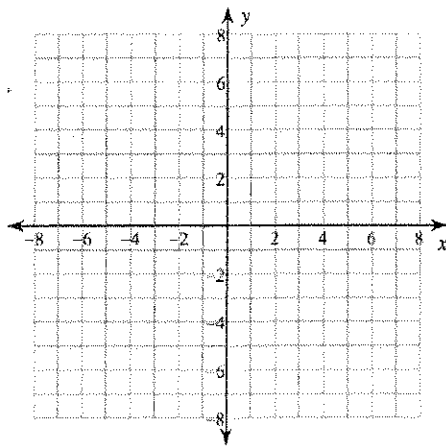
4) $x = -4y^2$



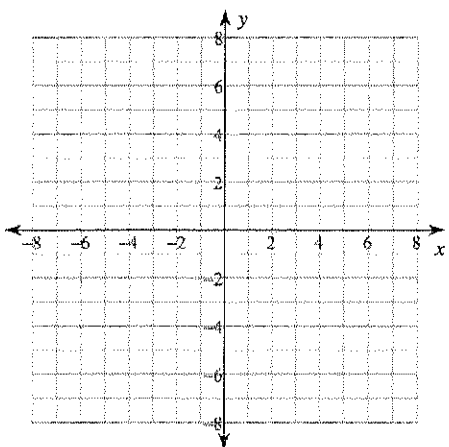
$$5) x = -5(y - 4)^2 - 1$$



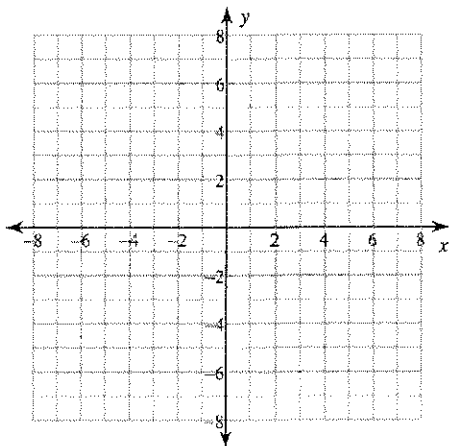
$$6) x = -2(y - 1)^2 + 8$$



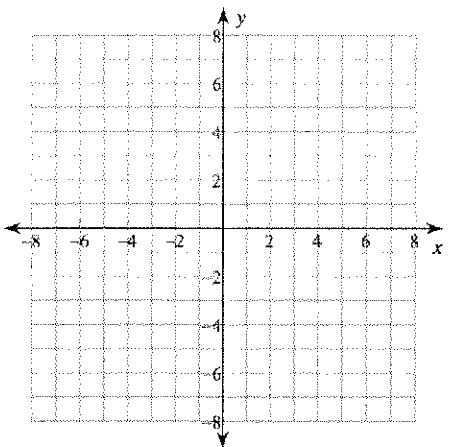
$$7) x = (y - 1)^2 + 3$$



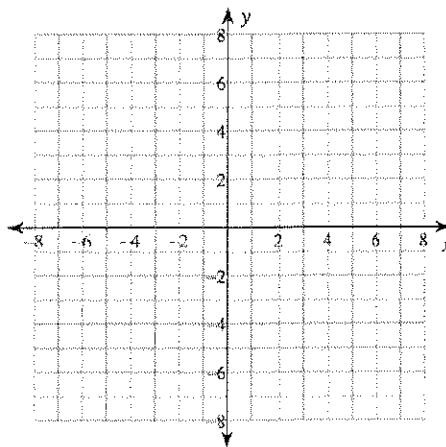
$$8) y = -\frac{1}{2}x^2 + \frac{1}{2}$$



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

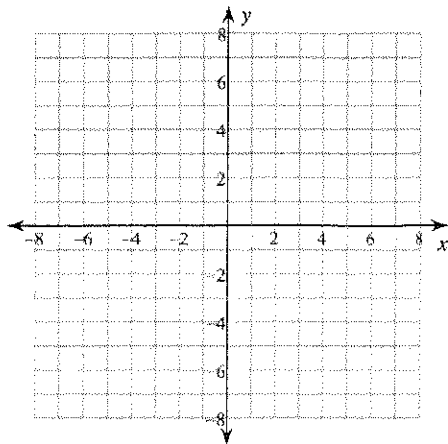


$$10) x = 3\left(y - \frac{11}{2}\right)^2 - \frac{27}{4}$$

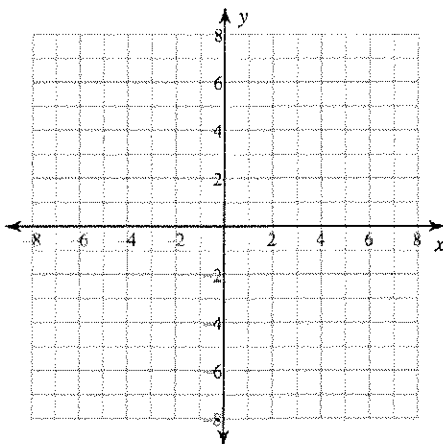


Identify the vertex, focus, axis of symmetry, directrix, direction of opening, length of the latus rectum, intercepts, and intercepts of focus. Then sketch the graph.

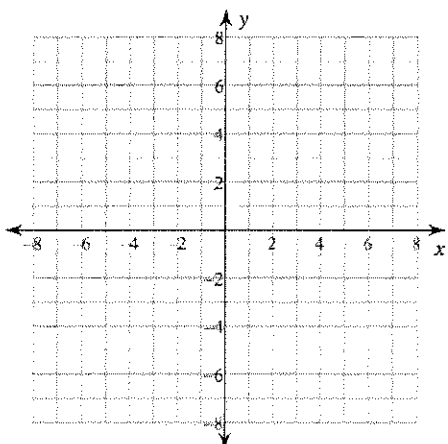
11) $-x^2 + 6x + y - 5 = 0$



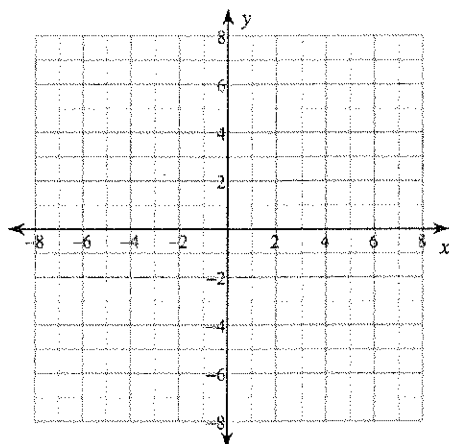
12) $x^2 + x + y = 0$



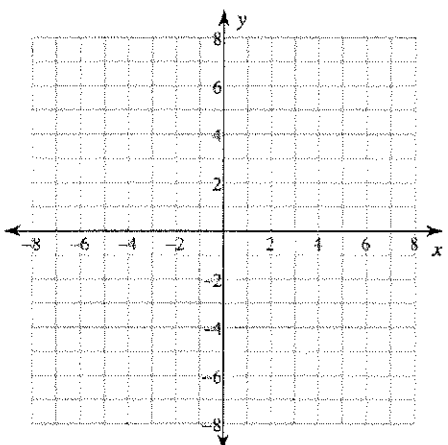
13) $-x^2 + 4x + y - 3 = 0$



14) $x^2 - 9x + y + 20 = 0$



15) $-x^2 - 5x + y - 6 = 0$



16) $2x^2 + 12x + y + 19 = 0$

