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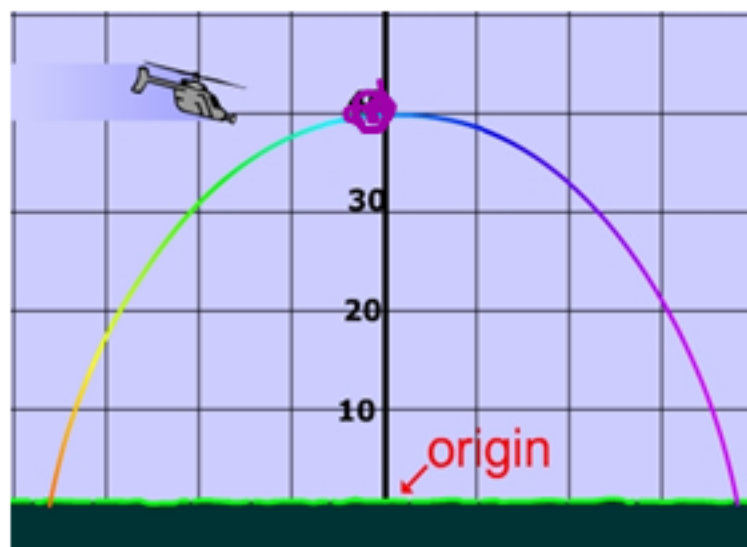
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Find the equation. Hint—use intercept form, then change to standard form.



yint (0, 40)
vertex (0, 40)

$$y = - (x + 37)(x - 37)$$

$$y = - (x^2 - 37x + 37x - 1369)$$

$$y = -1(x^2 - 1369)$$

$$y = -x^2 + 1369$$

Practice #2: Determine the approximate equation of the parabola. Use vertex form, then change to standard form.

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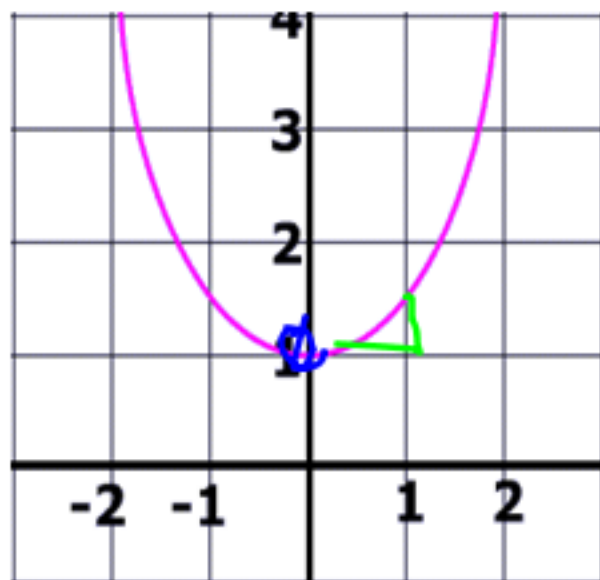
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Practice #2: Determine the approximate equation of the parabola. Use vertex form, then change to standard form.



$$y = a(x - h)^2 + k$$

vertex (0, 1)

$\begin{matrix} h & k \end{matrix}$

$$a = \frac{1}{2}$$

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

Practice #3: a) Sketch a grid on top of this picture or copy it into desmos. Hint—placing the vertex on the origin is always easiest. Label any of the following on the graph: x-intercept(s), y-intercept, AOS, Vertex.

b) Using guess and check, put in a variety of numbers for “a” in vertex form to find out how much the parabola shrinks or stretches (hint: $y = a(x-0)^2 + 0 \dots$ looks like $y = ax^2$). Then, write the vertex form of the equation in the space below, and convert it to standard form.