2.2: Graphing Functions

1. Graph the following function: $f(x) = \frac{1}{3}x - 2$

2. Graph the following function: $y = |x - 4| - 1$
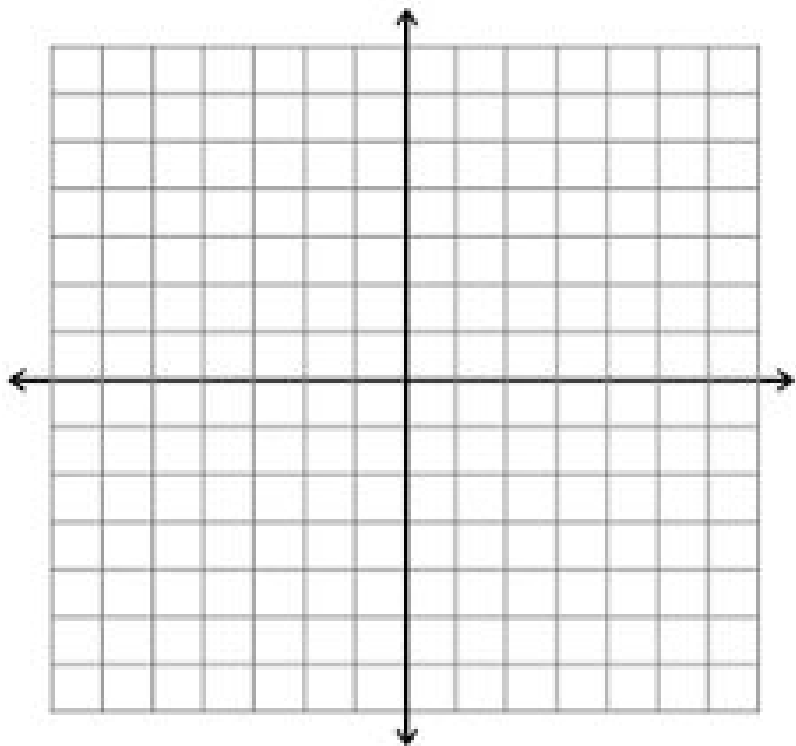
What does f(6) = ?

Mark the point on the graph as an ordered pair.
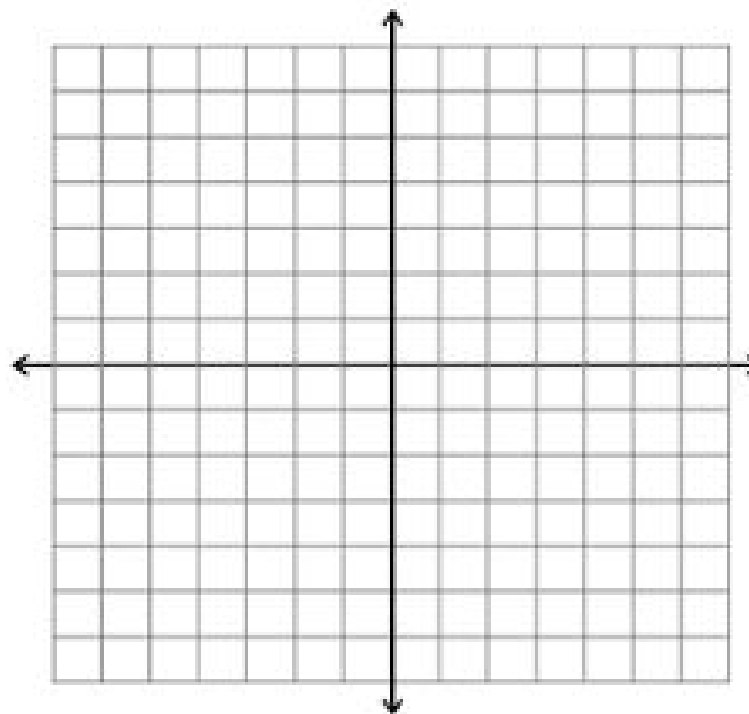
What is y when x = 3? Mark the point as an ordered pair.

3. Graph the following function: $f(x) = x^2 + 2x - 5$
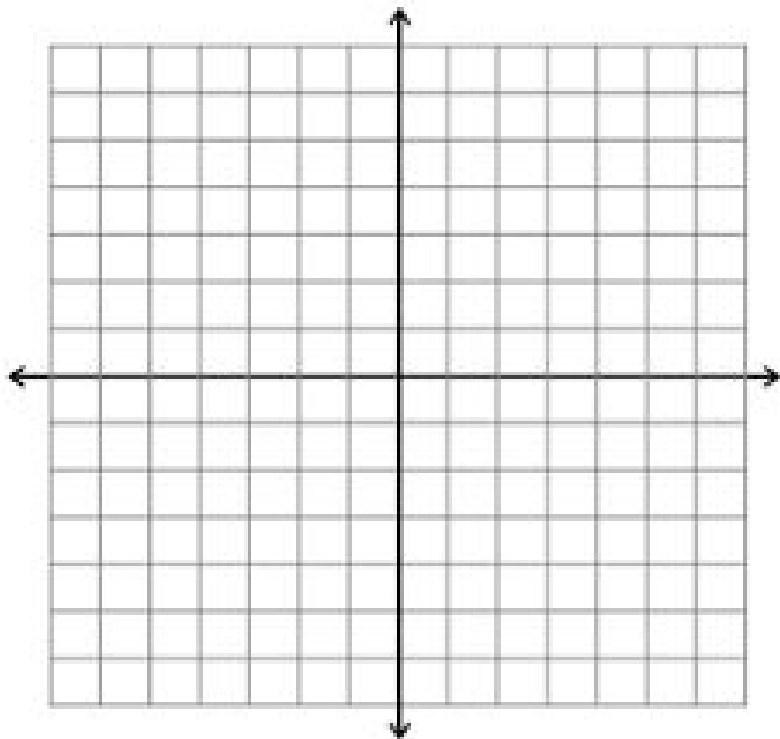   (Use a graphing calculator, or make a table)

4. Graph the following function: $y = \sqrt{x+1} - 2$ for $x \geq -1$
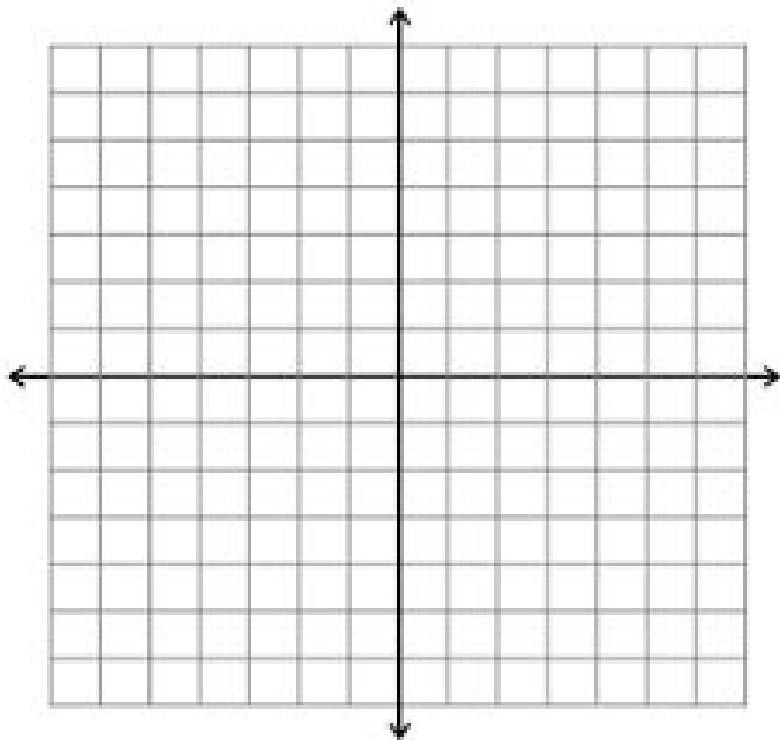
What is the value of f(2)? Label it on the graph.
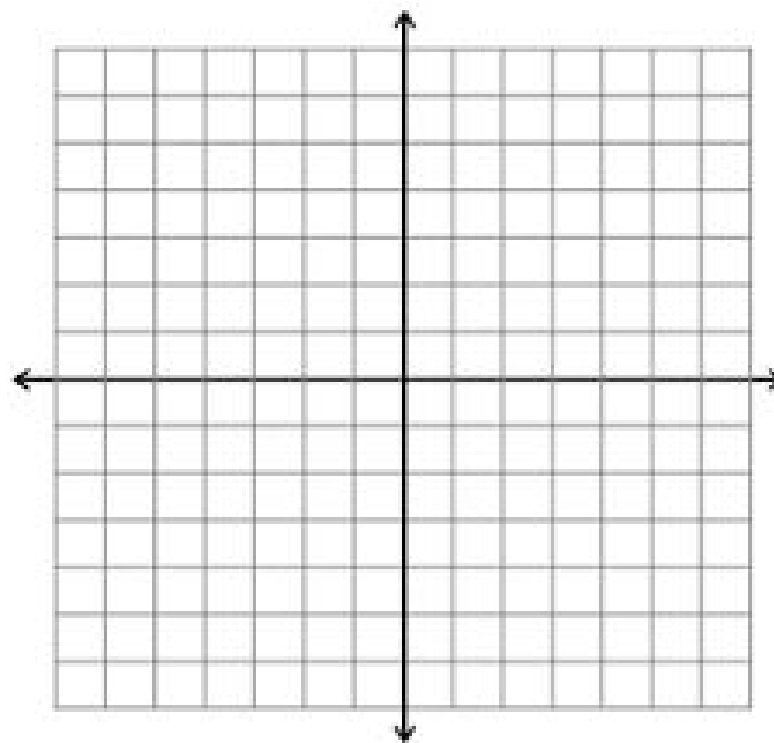Mark the vertex of the parabola as an ordered pair.
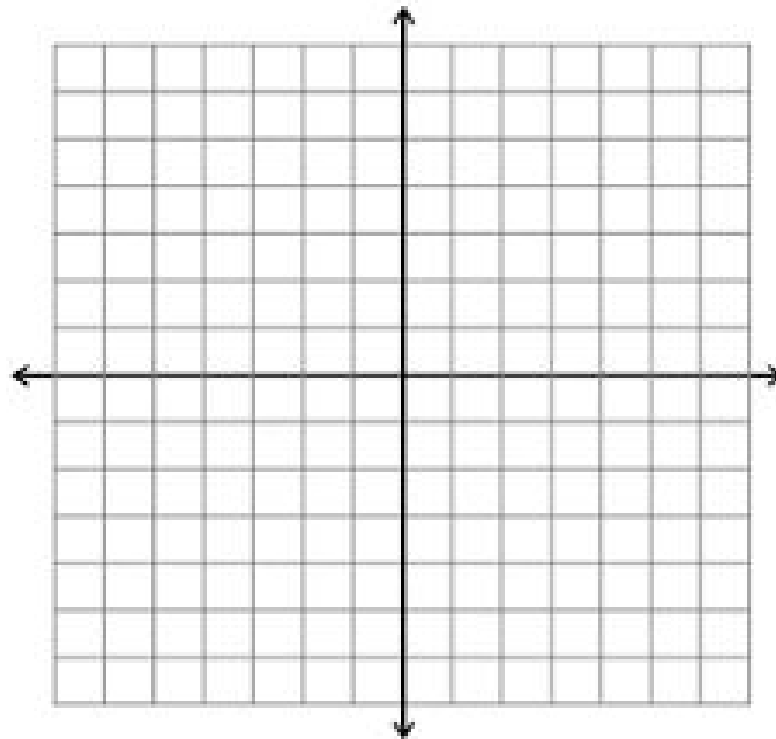
Mark the y-intercept and x-intercepts with their values.

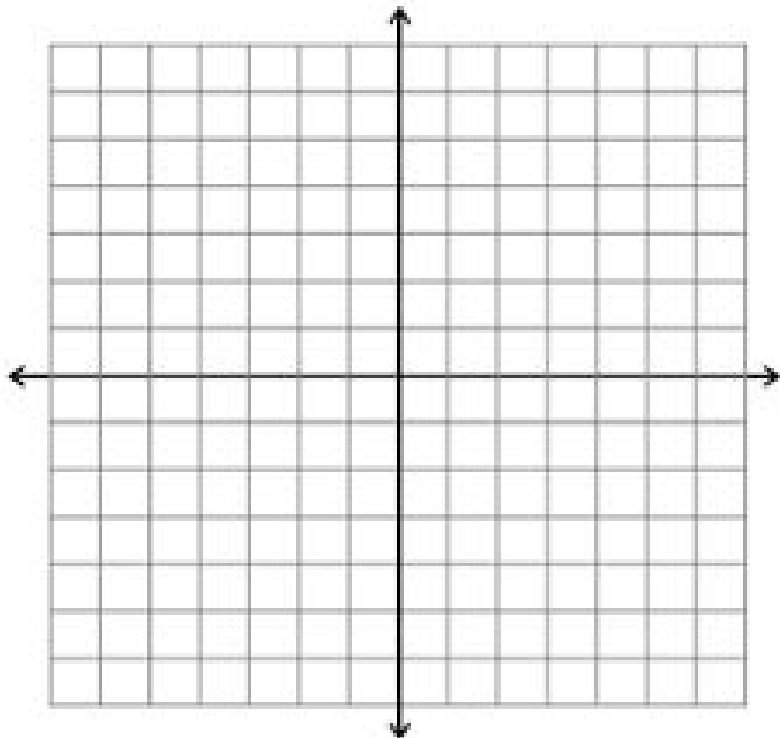5. Graph the following function: $f(x) = (2)^x$
   Use a graphing calculator

6. Graph the following function: $y = 2(.6)^x$

What x would make f(x)=16?
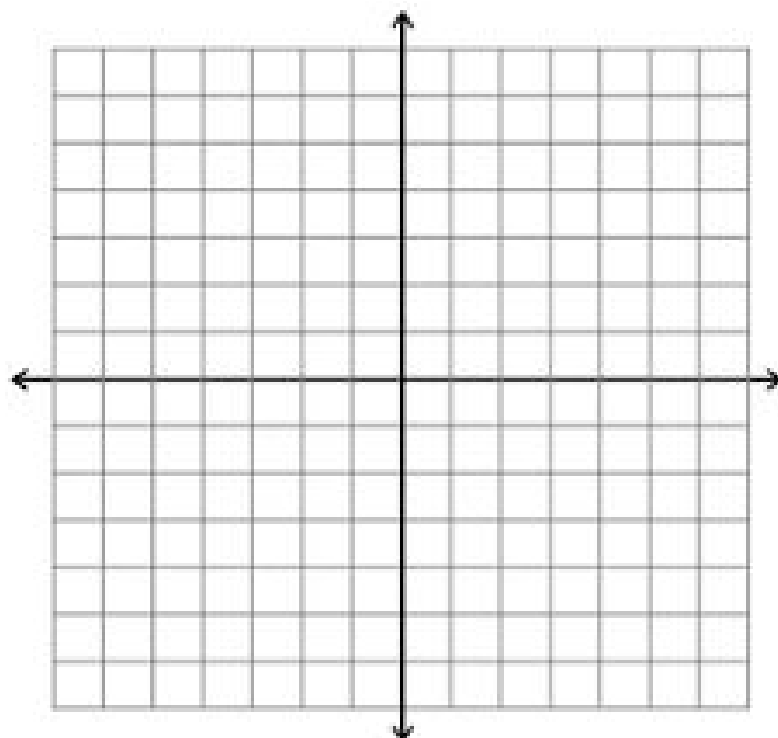
What is the value of y for x= -2 to the nearest tenth?

7. Graph the following function: $y = x^3 + 3$

8. Graph the following function: $y = 2\,log(10x) + 2$
   Use a graphing calculator with a *log* key

What is the *x* for which *f(x)* = -5? Mark it on the graph.

What is the value of y for x=4? Mark the point on the graph.

Name: _____   11.1 IB Math SL

+2 point Regents Problem (June 2017)

29 Graph $y = 400(.85)^{2x} - 6$ on the set of axes below.