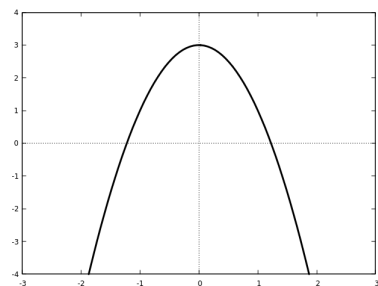


# Algebra: Practice Quiz 1

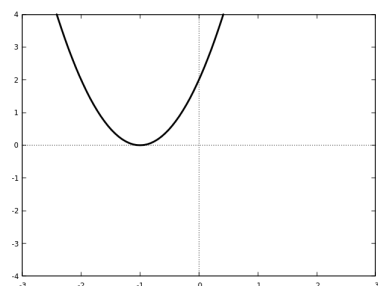
## Format and instructions

- The quiz will be 10 questions. (This practice quiz is shorter.) You have the entire 55 minute class period.
- Show all your work in an orderly fashion. Remember: it's not just about getting a correct final answer, it's about being able to communicate how you got that answer.
- The only materials that need to be brought are a pencil or pen. You do not need to bring your own paper to write on.
- Electronic devices, including phones, computers, and calculators, are not allowed during the quiz period.
- You are not allowed to refer to notes or books during the quiz period.
- Please be quiet during the quiz period, so that you are not a distraction to your classmates.
- Individual accommodations may modify these rules.

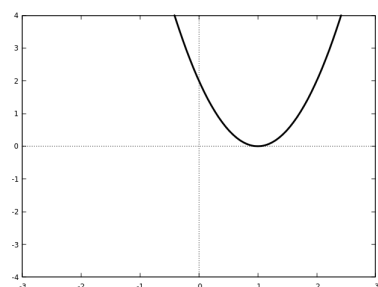
1. Match each graph to the equation which gives it.



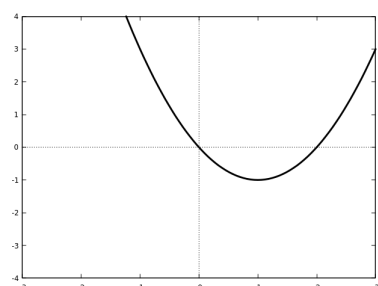
$$A(x) = 2(x - 1)^2$$



$$B(x) = 2(x + 1)^2$$

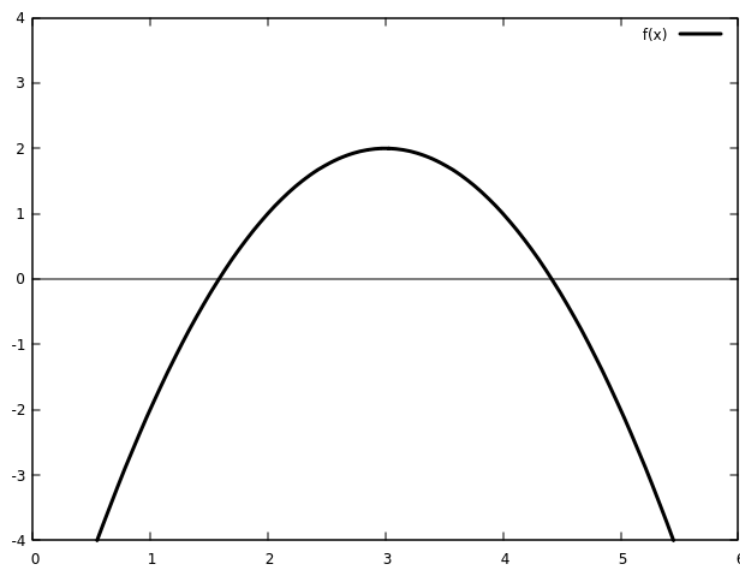


$$C(x) = x(x - 2)$$



$$D(x) = 3 - 2x^2$$

2. A quadratic function  $f(x)$  is graphed below.



(a) How many  $x$ -intercepts does  $f(x)$  have?

(b) How many solutions are there to  $f(x) = 3$ ?

(c) What is the vertex of  $f(x)$ ?

3. Find the  $y$ -intercept and all  $x$ -intercepts of the function

$$y = -2(x - 4)(x + 2).$$

4. Find the vertex of the following function, and sketch a graph of it. Identify the vertex on your graph.

$$f(x) = 2(x + 1)^2 + 3$$

5. Solve the equation

$$2x^2 - 12x + 10 = 0$$

by completing the square.

6. Fully simplify the expressions involving square roots.

$$10\sqrt{32}$$

$$\frac{\sqrt{18} - 3}{\sqrt{225}}$$

You can use these prime factorizations to help:

$n$	factorization
18	$2 \times 3^2$
32	$2^5$
225	$3^2 \times 5^2$