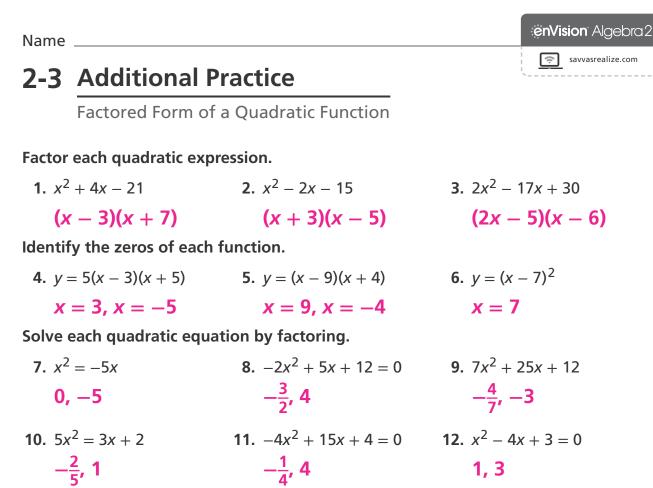


- **13.** $y = 2x^2 17x + 30$ Positive **14.** $y = -7x^2 + 35x - 28$ Positive **15.** $y = -x^2 - 6x - 8$ Negative **16.** $y = 2x^2 - 4x - 16$ Negative
- **17.** A rock is thrown upward from the edge of a bridge and onto a road that is 10 feet below the bridge. The function $h(x) = -x^2 + 3x + 10$ gives the height, h, in feet, the rock travels in x seconds from the time it was thrown. When will the rock hit the road?
- **18.** Write an equation of a parabola with *x*-intercepts at $(\frac{1}{4}, 0)$ and (-7, 0) which passes through the point (0, 7).



Identify the interval(s) on which each quadratic function is positive or negative as shown.

- **13.** $y = 2x^2 17x + 30$ Positive**14.** $y = -7x^2 + 35x 28$ Positive $x < \frac{5}{2}$ and x > 61 < x < 4**15.** $y = -x^2 6x 8$ Negative**16.** $y = 2x^2 4x 16$ Negative
 - x < -4 and x > -2
- **17.** A rock is thrown upward from the edge of a bridge and onto a road that is 10 feet below the bridge. The function $h(x) = -x^2 + 3x + 10$ gives the height, h, in feet, the rock travels in x seconds from the time it was thrown. When will the rock hit the road?

-2 < x < 4

The rock will hit the ground after 5 seconds.

18. Write an equation of a parabola with *x*-intercepts at $(\frac{1}{4}, 0)$ and (-7, 0) which passes through the point (0, 7).

y = -(4x - 1)(x + 7)