

Name: _____

Date: _____

Factored form shows the zeros directly: $y = a(x - r_1)(x - r_2)$. Each root r makes a factor $(x - r)$. Last two are challenge problems!

1. Zeros of $y = (x - 2)(x - 6)$?

show your work

2. Zeros of $y = (x + 4)(x - 1)$?

show your work

3. Write factored form for a parabola with zeros 3 and -5.

show your work

4. Write factored form for zeros 0 and 7.

show your work

5. Expand $y = (x - 2)(x - 6)$ to standard form.

show your work

6. A parabola has zeros -2 and 4. Where is its axis of symmetry?

show your work

7. Factored form $y = (x + 3)(x - 3)$: zeros, and y-intercept?

show your work

8. $y = 2(x - 1)(x - 5)$: zeros and how the 2 affects the graph?

show your work

- 9.** A parabola has zeros -1 and 3 and passes through (1, -8). Find 'a' in $y = a(x + 1)(x - 3)$. ★ CHALLENGE

show your work

- 10.** Build a quadratic (standard form) with zeros -4 and 6 that passes through (0, -48). Find a first. ★ CHALLENGE

show your work