

Name: \_\_\_\_\_

Date: \_\_\_\_\_

*Zeros = x-intercepts = solutions when  $y = 0$ . Factor, then set each factor to 0 (Zero Product Law). Last two are challenge problems!*

**1.** Solve  $(x - 3)(x + 5) = 0$ .

*show your work*

**2.** Solve  $x(x - 4) = 0$ .

*show your work*

**3.** Find the zeros of  $y = x^2 - 7x + 12$ .

*show your work*

**4.** Find the zeros of  $y = x^2 + 2x - 15$ .

*show your work*

5. Solve  $x^2 - 9 = 0$ .

*show your work*

6. Zeros of  $f(x) = x^2 - 8x - 20$ .  
(Trainer echo - Aug 2025 Q4!)

*show your work*

7. Zeros of  $f(x) = x(x^2 - 36)$ . (Trainer echo - Jan 2026 Q16!)

*show your work*

8. Solve  $3x^2 = 24x$ . (Trainer echo - Aug 2025 Q10!)

*show your work*

9. Solve  $2x^2 - x - 78 = 0$  by factoring. ★ CHALLENGE

*show your work*

10. A parabola has zeros -3 and 5. ★ CHALLENGE  
Write a possible equation in factored form, then in standard form.

*show your work*