

Name: _____

Date: _____

y-intercept: where $x = 0$. x-intercept (zero): where $y = 0$. Last two are challenge problems!

1. $y = 2x + 6$. Find the y-intercept.

show your work

2. $y = 2x + 6$. Find the x-intercept.

show your work

3. $f(x) = x - 5$. Find the zero of the function.

show your work

4. Table: $x = 0, 1, 2, 3$ with $y = 8, 6, 4, 2$.
Increasing or decreasing?

show your work

5. Table: $x = 0, 1, 2, 3$ with $y = 1, 3, 9, 27$.
Increasing or decreasing?

show your work

6. $f(x) = 3x - 12$. Find the zero.

show your work

7. $y = -4x + 8$. State both intercepts.

show your work

8. $f(0) = 7$ for some function. What graphical feature is this?

show your work

9. $f(x) = x^2 - 9$. Find ALL zeros. ★ CHALLENGE

show your work

10. A parabola has zeros at $x = 1$ and $x = 5$. At what x is its turning point? ★ CHALLENGE

show your work