

Name _____

Date _____

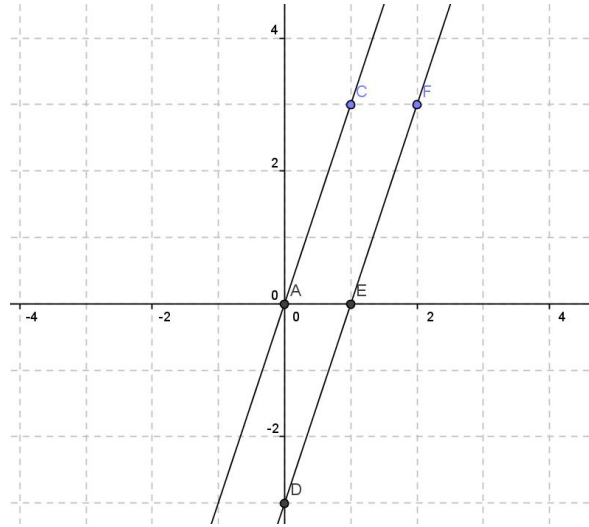
Math 8: X-and Y-Intercepts

1. Write the equation of line AC.

To create line DF, the first line was translated one unit to the right.

2. What do you notice about these two lines?

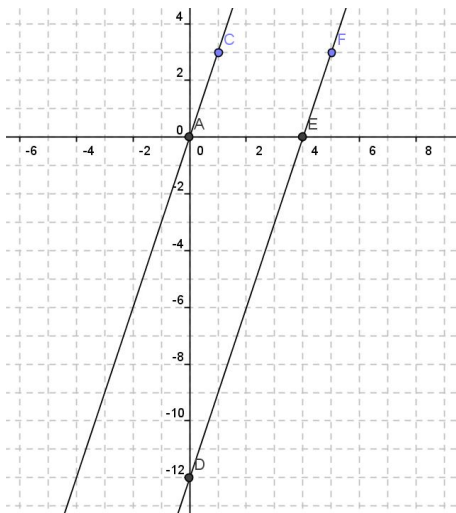
3. What is the equation of line DF?



4. At what point does line AC intersect the y-axis? X-axis?

5. At what point does line DF intersect the y-axis? X-axis?

This time, line AC was translated 4 units right.



6. What do you notice about these two lines?

7. What is the equation of the line DF?

8. Can you make any generalizations?

9. At what point does line DF intersect the y-axis? X-axis?

10. Can you make any generalizations about the x-intercept? Y-intercept?

11. Using what you've discovered about x- and y-intercepts, how can you find them, given just an equation?

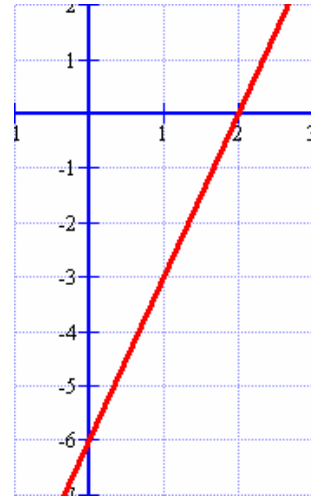
$$y = \frac{1}{2}x + 6$$

The **x-intercept** is:

The y-coordinate is always ____.

The **y-intercept**:

The x-coordinate is always ____.



Find the x- and y-intercepts.

12. $x - 2y = 12$

13. $-3x + 5y = 9$

14. $y = 7$