

READY, SET, GO!

Name _____

Period _____

Date _____

READY

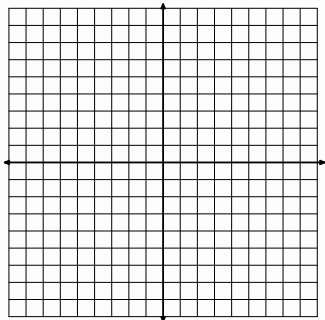
Topic: Graphing lines using the intercepts

Find the x-intercept and the y-intercept. Then graph the equation.

1. $3x + 2y = 12$

a. x-intercept:

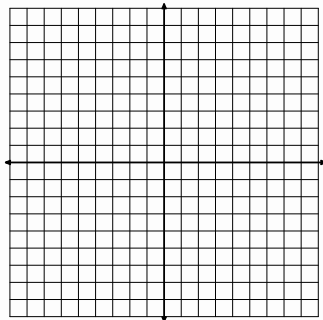
b. y-intercept:



2. $8x - 12y = -24$

a. x-intercept:

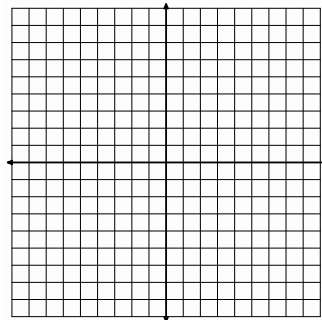
b. y-intercept:



3. $3x - 7y = 21$

a. x-intercept:

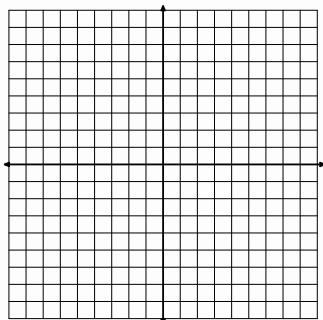
b. y-intercept:



4. $5x - 10y = 20$

a. x-intercept:

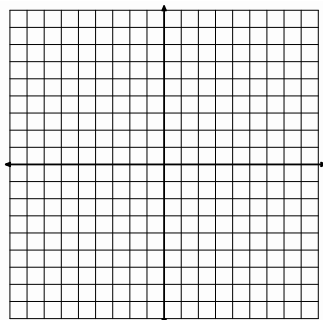
b. y-intercept:



5. $2y = 6x - 18$

a. x-intercept:

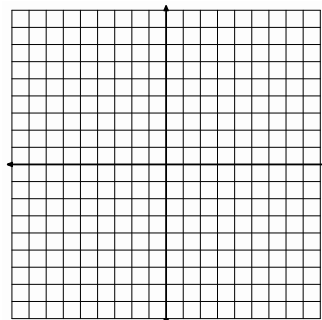
b. y-intercept:



6. $y = -6x + 6$

a. x-intercept:

b. y-intercept:



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SET

Topic: Completing the square by paying attention to the parts

Multiply. Show each step. Circle the pair of like terms before you simplify to a trinomial.

7. $(x + 5)(x + 5)$ 8. $(3x + 7)(3x + 7)$ 9. $(9x + 1)^2$ 10. $(4x + 11)^2$

11. Write a rule for finding the coefficient “B” of the x-term (the middle term) when multiplying and simplifying $(ax + q)^2$.

In problems 12 – 17,

(a) Fill in the number that completes the square.

(b) Then write the trinomial as the product of two factors.

12. a) $x^2 + 8x + \underline{\hspace{2cm}}$

b)

13. a) $x^2 + 10x + \underline{\hspace{2cm}}$

b)

14. a) $x^2 + 16x + \underline{\hspace{2cm}}$

b)

15. a) $x^2 + 6x + \underline{\hspace{2cm}}$

b)

16. a) $x^2 + 22x + \underline{\hspace{2cm}}$

b)

17. a) $x^2 + 18x + \underline{\hspace{2cm}}$

b)

In problems 18 – 26,

(a) Find the value of “B,” that will make a perfect square trinomial.

(b) Then write the trinomial as a product of two factors.

18. $x^2 + Bx + 16$

a)

b)

19. $x^2 + Bx + 121$

a)

b)

20. $x^2 + Bx + 625$

a)

b)

21. $x^2 + Bx + 225$

a)

b)

22. $x^2 + Bx + 49$

a)

b)

23. $x^2 + Bx + 169$

a)

b)

24. $x^2 + Bx + \frac{25}{4}$

a)

b)

25. $x^2 + Bx + \frac{9}{4}$

a)

b)

26. $x^2 + Bx + \frac{49}{4}$

a)

b)

GO

Topic: Features of horizontal and vertical lines

Find the intercepts of the graph of each equation. State whether it’s an x- or y- intercept.

27. $y = -4.5$

28. $x = 9.5$

29. $x = -8.2$

30. $y = 112$

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