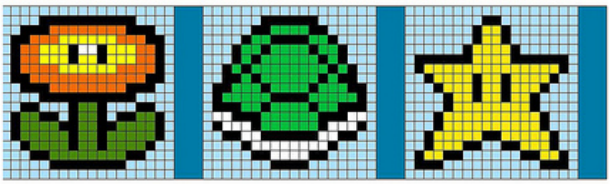
Ready, Set, Go!

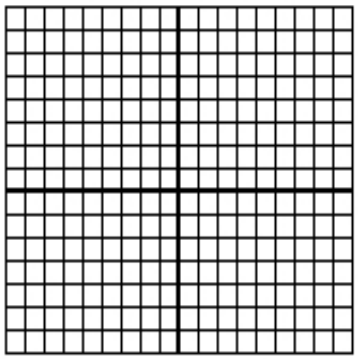
Ready

Topic: graphing lines using the intercepts

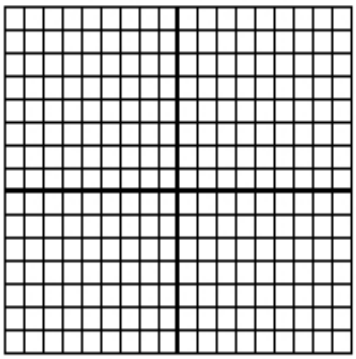


Find the x-intercept and the y-intercept.
Then graph the equation.

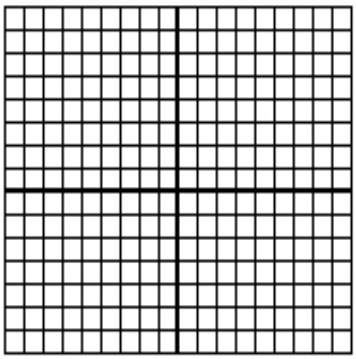
1. $3x + 2y = 12$



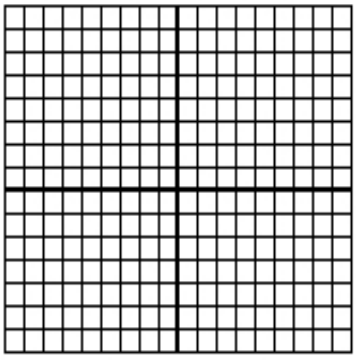
2. $8x - 12y = -24$



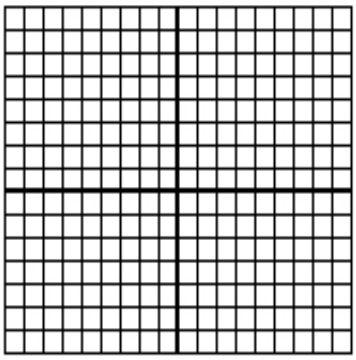
3. $3x - 7y = 21$



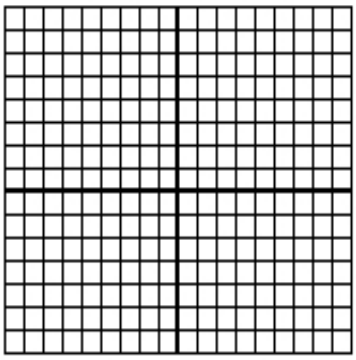
4. $5x - 10y = 20$



5. $2y = 6x - 18$



6. $y = -6x + 6$



Set Topic: Completing the square

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 of the x-term when multiplying and simplifying $(x+q)^2$.

Fill in the number that completes the square. Then write the trinomial in factored form.

12. $x^2+8x+\_\_\_\_$ 2. $x^2-10x+\_\_\_\_$ 3. $x^2+16x+\_\_\_\_$

4. $x^2-6x+\_\_\_\_$ 5. $x^2-22x+\_\_\_\_$ 6. $x^2+18x+\_\_\_\_$

On the next set of problems, leave the number that completes the square as a fraction. Then write the trinomial in factored form.

7. $x^2-11x+\_\_\_\_\_$ 8. $x^2+7x+\_\_\_\_\_$ 9. $x^2+15x+\_\_\_\_\_$

10. $x^2+\frac{2}{3}x+\_\_\_\_\_$ 11. $x^2-\frac{1}{5}x+\_\_\_\_\_$ 12. $x^2-\frac{3}{4}x+\_\_\_\_\_$

Find the value of "B," that will make a perfect square trinomial. Then write the trinomial in factored form.

16. $x^2+\_\_\_\_\_x+16$ 17. $x^2-\_\_\_\_\_x+121$ 18. $x^2-\_\_\_\_\_x+625$

19. $9x^2+\_\_\_\_\_x+225$ 20. $25x^2+\_\_\_\_\_x+49$ 21. $x^2+\_\_\_\_\_x+9$

22. $x^2+\_\_\_\_\_x+\frac{25}{4}$ 23. $x^2+\_\_\_\_\_x+\frac{9}{4}$ 24. $x^2+\_\_\_\_\_x+\frac{49}{4}$

Go

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

25. y = -4.5

26. x = 9.5

27. x = -8.2

28. y = 112