Warm-up Tuesday April 26

19 A company charges $211.25 for 5 trees and 15 shrubs. The company charges $15.25 more for a tree than a shrub. How much does each shrub cost?

A $6.75

B $7.75

C $19.25

D $22.00

Complete problems 19 and 24-26 in your EOG Packet!

Warm-up Tuesday April 26

19 A company charges $211.25 for 5 trees and 15 shrubs. The company charges $15.25 more for a tree than a shrub. How much does each shrub cost?

A $6.75

B $7.75

C $19.25

D $22.00

$5t + 15s = 211.25$

$t = 15.25 + s$

$5(15.25 + s) + 15s = 211.25$

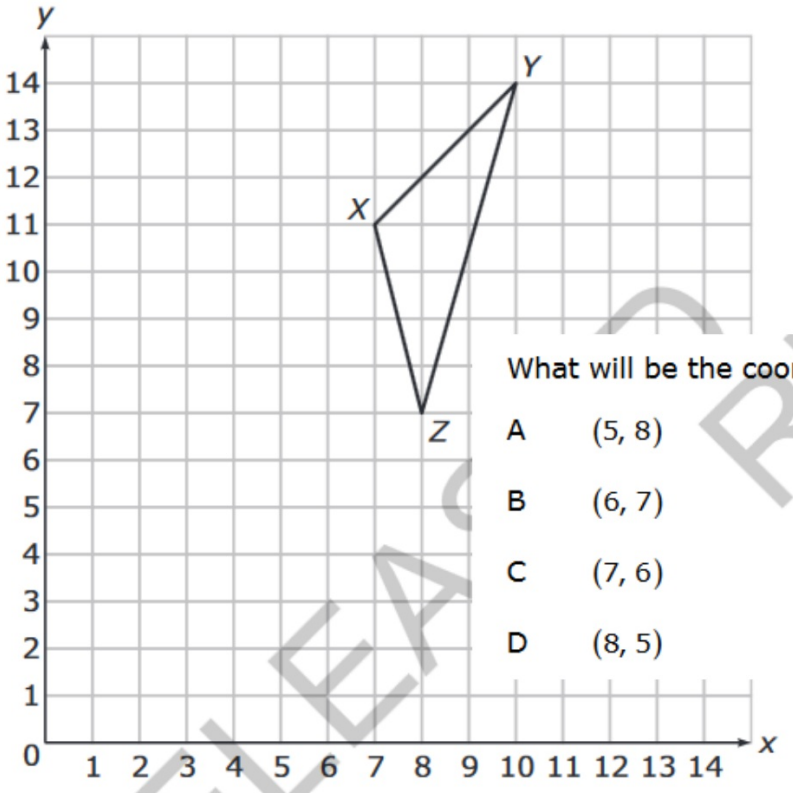
$76.25 + 5s + 15s = 211.25$

$76.25 + 20s = 211.25$

$20s = 135.00$

$s = 6.75$

24 $\triangle XYZ$ will be translated so that the coordinates of X' are $(5, 11)$



What will be the coordinates of Z'?

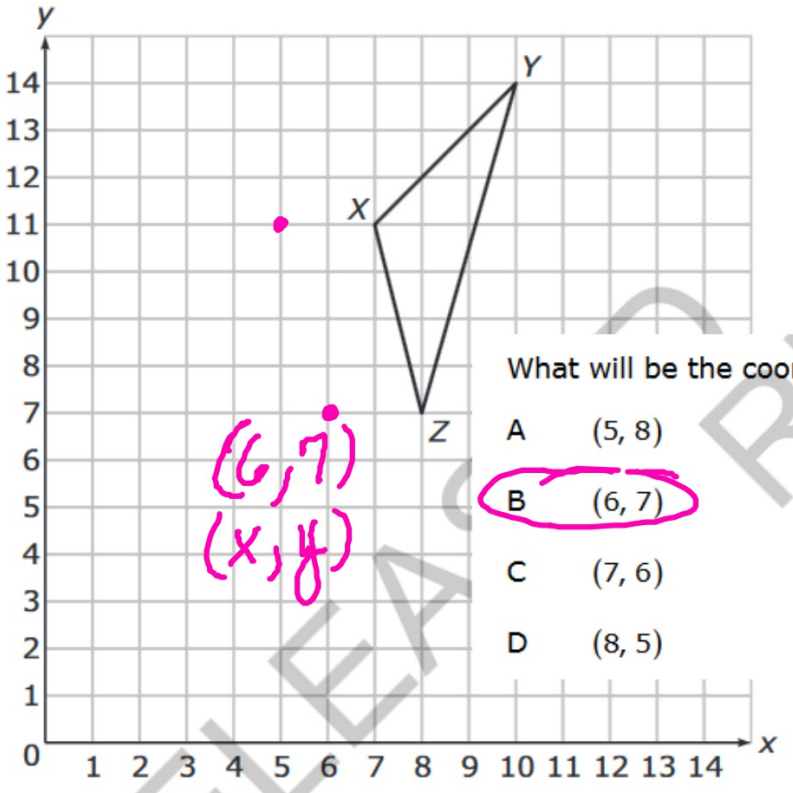
A (5, 8)

B (6, 7)

C (7, 6)

D (8, 5)

24 $\triangle XYZ$ will be translated so that the coordinates of X' are $(5, 11)$



What will be the coordinates of Z'?

A (5, 8)

B (6, 7)

C (7, 6)

D (8, 5)

25 Kim made soup which contains 75 total ounces of beans.

- The soup has two kinds of beans, black and red.
- There are 4 times as many ounces of black beans as red beans.

How many ounces of red beans are in the soup?

A 5

B 12

C 15

D 19

25 Kim made soup which contains 75 total ounces of beans.

- The soup has two kinds of beans, black and red.
- There are 4 times as many ounces of black beans as red beans.

How many ounces of red beans are in the soup?

A 5

B 12

C 15

D 19

$b + r = 75$

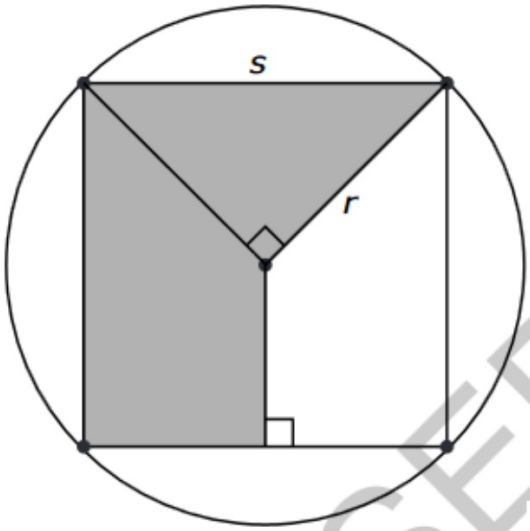
$4r = b$

$4r + r = 75$

$5r = 75$

$r = 15$

26 The figure below shows a square inscribed in a circle. The area of the shaded region is 2.5 square units.



What is the ***approximate*** area of the circle?

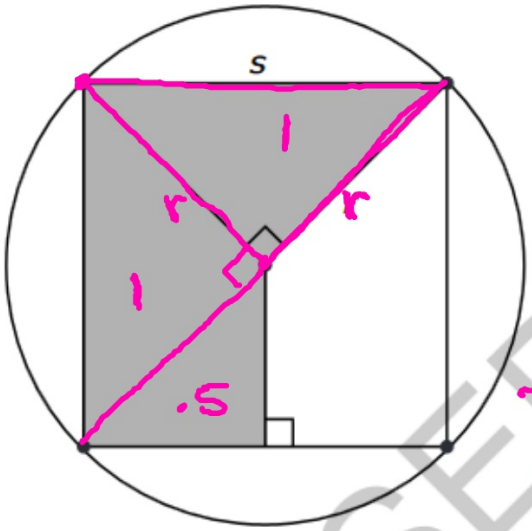
A 3.1 square units

B 4.7 square units

C 6.3 square units

D 7.9 square units

26 The figure below shows a square inscribed in a circle. The area of the shaded region is 2.5 square units.



$A = \frac{1}{2}bh$

$1 = \frac{1}{2}r \cdot r$

$1 = \frac{1}{2}r^2$

$2 = r^2$

$\sqrt{2} = \sqrt{r^2}$

$\sqrt{2} = r$

$A = \pi r^2$

$A = \pi(\sqrt{2})^2$

$A = 2\pi$

$A = 2(3.14)$

$A = 6.28$

What is the ***approximate*** area of the circle?

A 3.1 square units

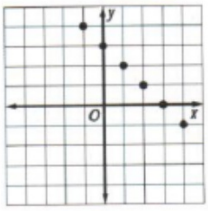
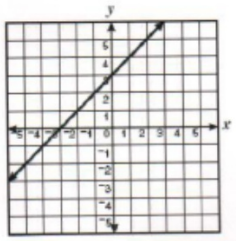
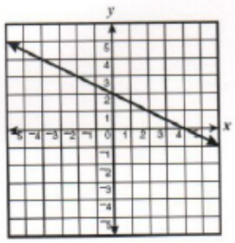
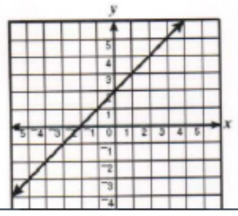
B 4.7 square units

C 6.3 square units

D 7.9 square units

Daily Homework Check

3 (Table and Rule)
2nd page- who did jumping jacks faster?

Graph	Table	Rule
	1) **C**	**F**
	2) **D**	**G**
	3) **A**	**H**
	4) **B**	**E**

A.

x	y
-2	3
0	2
2	1
4	0

B.

x	y
-4	-2
-3	-1
-1	1
2	4

C.

x	y
-1	4
1	2
3	0
4	-1

D.

x	y
-3	0
-2	1
-1	2
1	4

E. $y = x + 2$

F. $y = -x + 3$

G. $y = x + 3$

H. $y = -\frac{1}{2}x + 2$

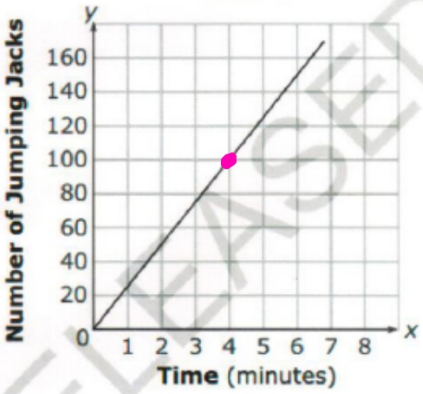
Alicia and Melissa did jumping jacks. The table below shows the number of jumping jacks that Alicia had done in different amounts of time.

Alicia	Time (minutes)	1	2	3	4	5	6	7	8
	Jumping Jacks	30	60	90	120	150	180	210	240

+30 +30

$y = 30x$

Melissa



$\frac{100}{4} = 25$

$y = 25x$

Who did jumping jacks faster?

Alicia

What is the difference between jumping jacks per minute?

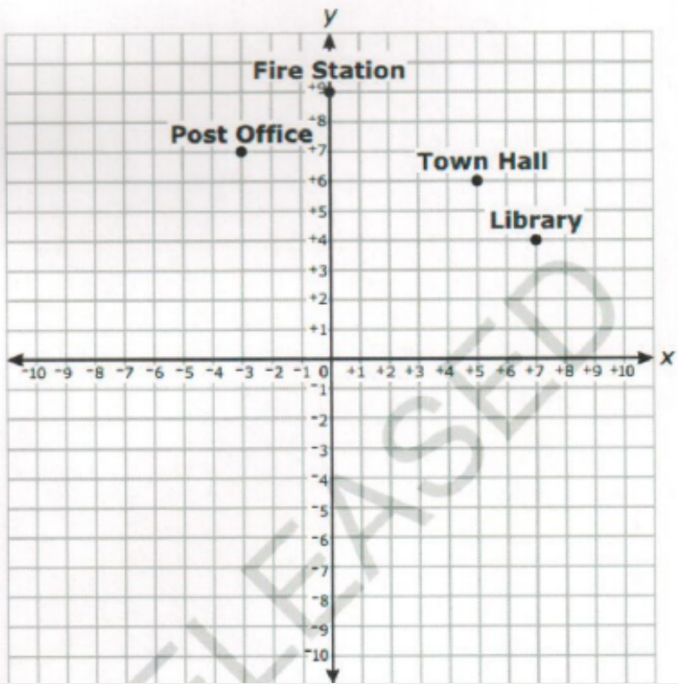
5 jumping jacks per minute

Identify the slope between:

Fire Station and Town Hall: $\frac{-3}{5}$

Post Office and Fire Station: $\frac{2}{3}$

Post Office and Library: $\frac{-3}{10}$



Solving Systems of Equations

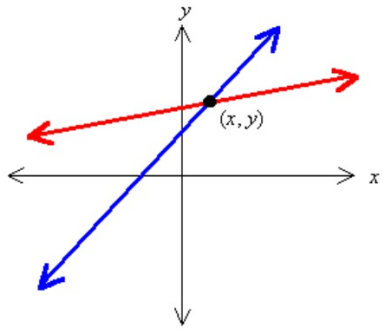
System of Equations - two or more equations in the same variables

Solution to a system of equations - the ordered pairs that make both equations true

Three different solutions to systems of equations:

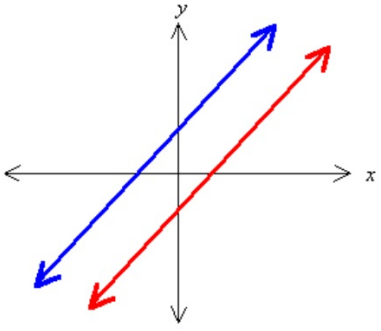
one solution

- *Lines intersect*
- *One solution*



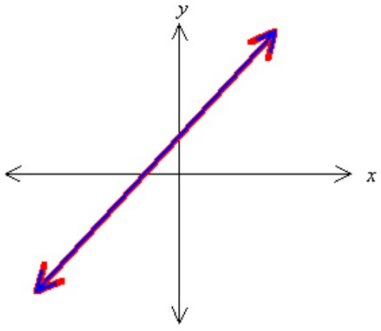
no solution

No solutions



infinitely many solutions

- *Equations describe the same line*
- *Infinite number of solutions*



We can solve systems two ways graphing and substitution.

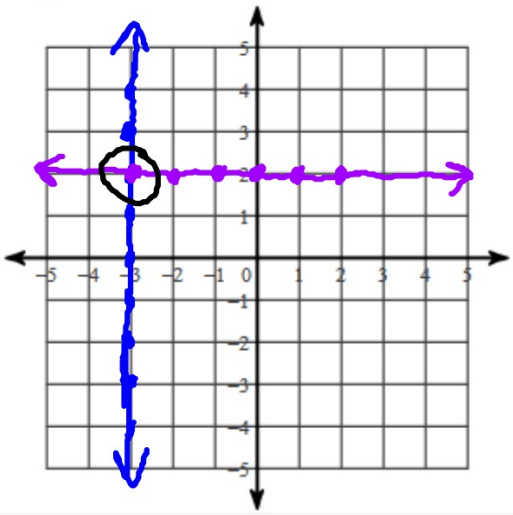
Steps to solving by graphing

1) Write the equations in slope-intercept form
2) Graph on equation
3) Graph the second equation
4) Write the solution of the system by looking at the graph

Solve the following systems by graphing.

Ex. 1) $x = -3$ (vertical line)
$y = 2$ (horizontal line)

(-3,2) is the solution



Ex. 2) $2x + 3y = -12$
$5x - 3y = -9$

$2x+3y=-12$

$3y=-2x-12$

$y=-\frac{2}{3}x-4$

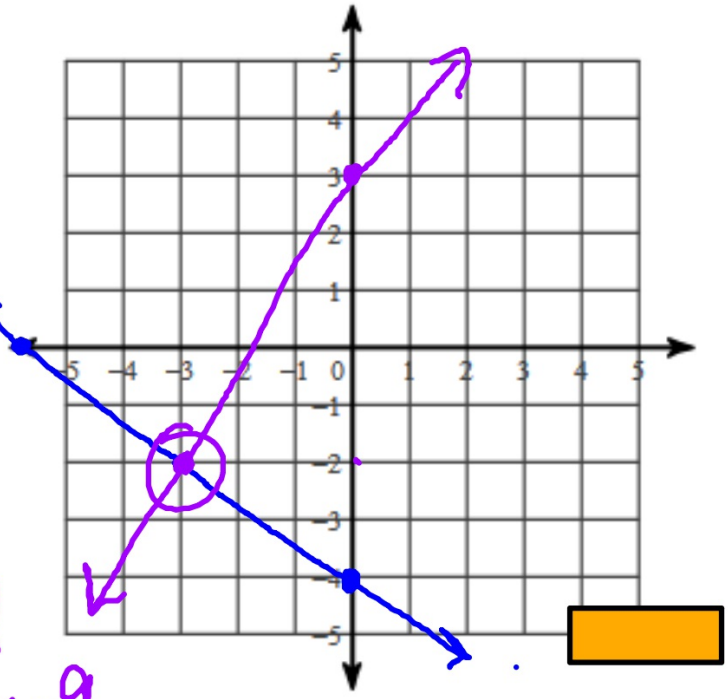
$m=-\frac{2}{3}\downarrow\rightarrow,\ b=-4$

$5x-3y=-9$

$-3y=-5x-9$

$y=\frac{5}{3}x+3$

$m=\frac{5}{3}\uparrow\rightarrow b=3$



(-3, -2) is the solution

Ex. 3) $-2y - 5x = 2$
$-5x = 2y - 4$

$-2y - 5x = 2$

$-2y = 5x + 2$

$y = -\frac{5}{2}x - 1$

$m = -\frac{5}{2}$ ↓ $b = -1$

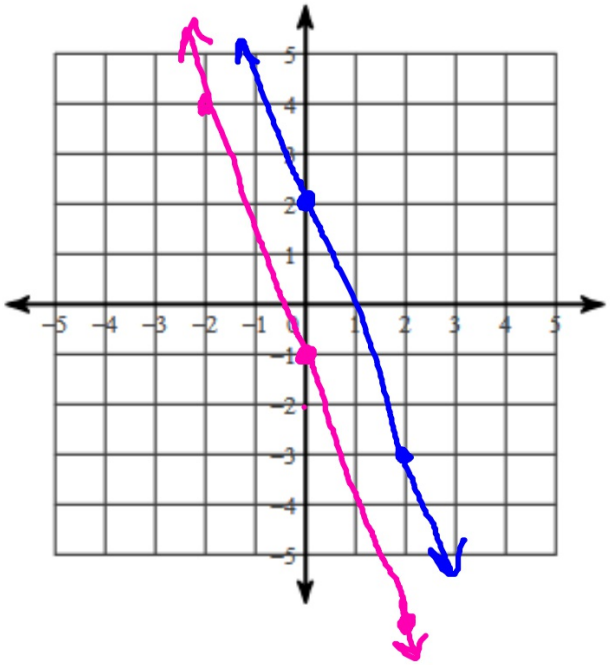
$-5x = 2y - 4$

$-5x + 4 = 2y$

$-\frac{5}{2}x + 2 = y$

$y = -\frac{5}{2}x + 2$

$m = -\frac{5}{2}$ ↓ $b = 2$



parallel lines

No Solution

Ex. 4) $-2x = -8 - 2y$

$-2y - 8 = -2x$

$-2x = -8 - 2y$

$-2x + 8 = -2y$

$x - 4 = y$

$y = x - 4$

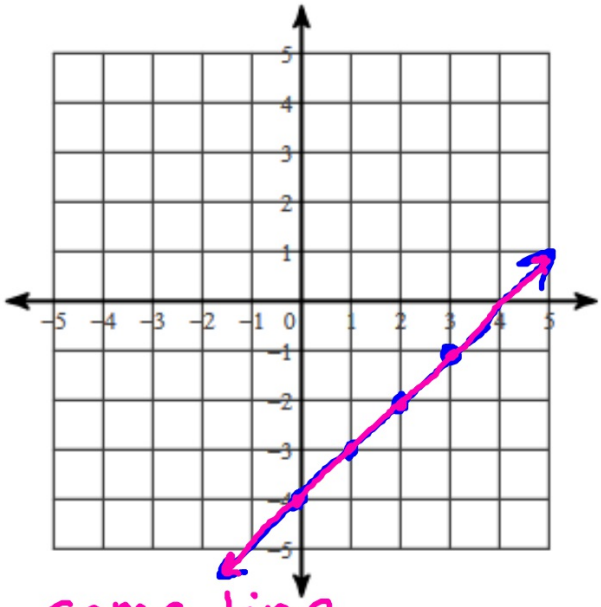
$m = \frac{1}{1}$ ↑ → $b = -4$

$-2y - 8 = -2x$

$-2y = -2x + 8$

$y = x - 4$

$m = \frac{1}{1}$ ↑ → $b = -4$



same line

infinitely many solutions

It's Kahoot time!!!

Homework: Solving Systems by Graphing Worksheet