Please get out your blendspace homework.

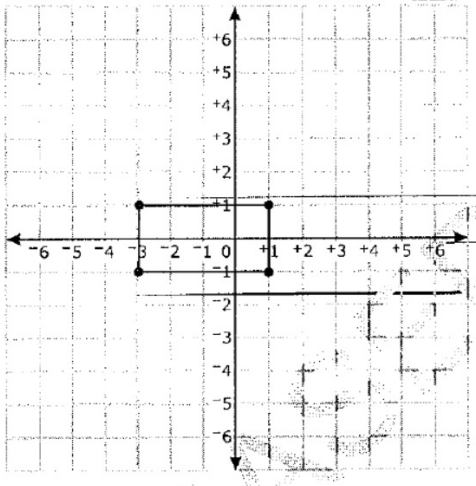
Make sure you have labeled box 27, 37, and 38.

Make sure your name is on the paper.

Pass them up to the front of your row.

Begin Problems 41- 45 in your EOG review packet.

41 Rectangle *WXYZ* will be dilated by a scale factor of $\frac{1}{2}$, creating rectangle *W′X′Y′Z′*.



What will be the perimeter of rectangle *W′X′Y′Z′*?

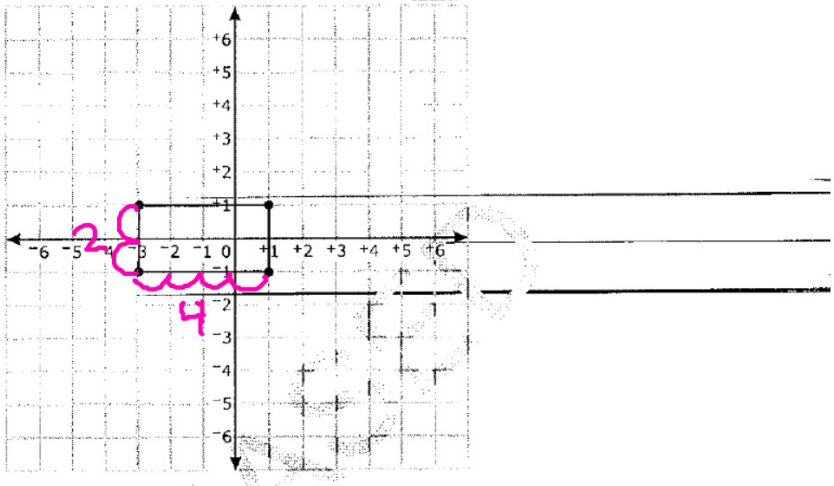
A 4 units

B 6 units

C 12 units

D 24 units

41 Rectangle *WXYZ* will be dilated by a scale factor of $\frac{1}{2}$, creating rectangle *W′X′Y′Z′*.



$12 = 4+4+2+2$

$\frac{1}{2}(12)$

What will be the perimeter of rectangle *W′X′Y′Z′*?

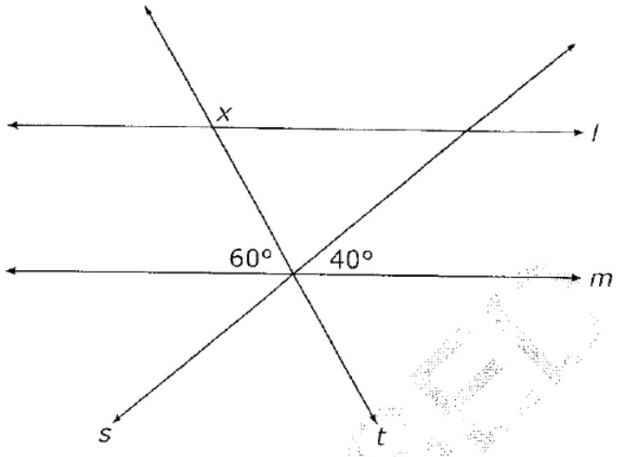
A 4 units

B 6 units

C 12 units

D 24 units

42 Lines *l* and *m* are parallel to one another and cut by transversals *s* and *t*.



What is the value of *x*?

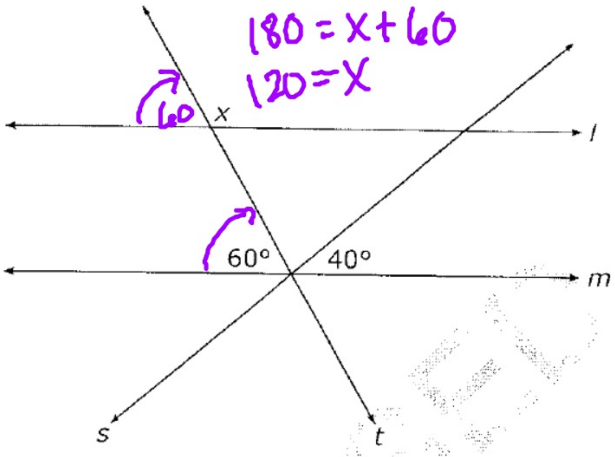
A 40°

B 80°

C 120°

D 140°

42 Lines l and m are parallel to one another and cut by transversals s and t.



What is the value of x?

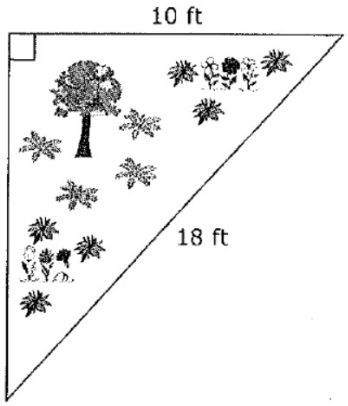
A 40°

B 80°

C 120°

D 140°

43 Molly wants to put a fence around an area. The fence will follow the diagram of the triangle shown below.



About how much fencing does Molly need?

A 28 ft

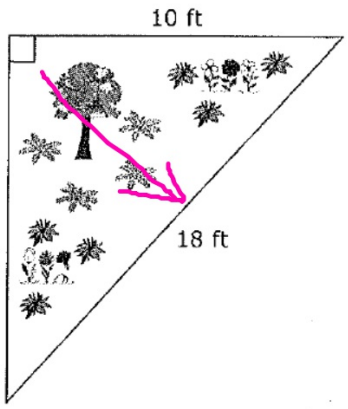
B 38 ft

C 43 ft

D 49 ft

perimeter

43 Molly wants to put a fence around an area. The fence will follow the diagram of the triangle shown below.



$P = 10 + 18 + 15$

$P = 43$

$a^2 + b^2 = c^2$

$a^2 + 10^2 = 18^2$

$a^2 + 100 = 324$

$a^2 = 224$

$a = \sqrt{224}$

$a \approx 15$

About how much fencing does Molly need?

A 28 ft

B 38 ft

C 43 ft

D 49 ft

44 The points (−3, −1) and (−3, 5) are adjacent vertices of a rectangle. Two of the sides of the rectangle have a length of 8 units. What is the length of a diagonal of the rectangle?

A 9 units

B 10 units

C 12 units

D 14 units

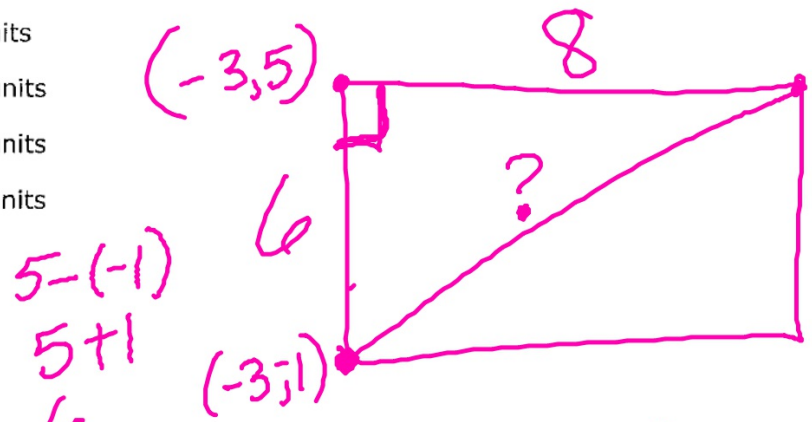
44 The points (−3, −1) and (−3, 5) are adjacent vertices of a rectangle. Two of the sides of the rectangle have a length of 8 units. What is the length of a diagonal of the rectangle?

A 9 units

B 10 units

C 12 units

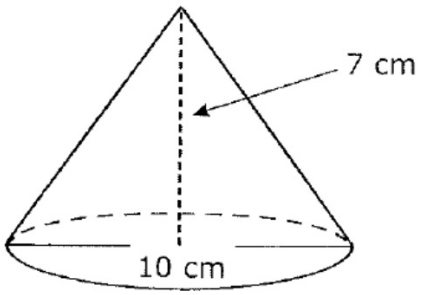
D 14 units



5−(−1)
5+1
6

3, 4, 5
6, 8, 10

45 What is the ***approximate*** volume of the cone below?



A 70 cm^3

B 183 cm^3

C 549 cm^3

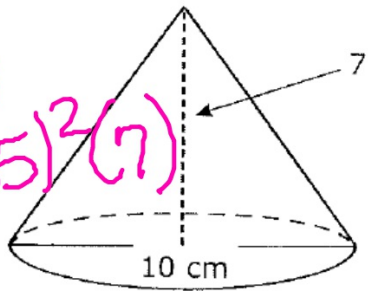
D 733 cm^3

45 What is the ***approximate*** volume of the cone below?

$V = \frac{1}{3}\pi r^2 h$

$V = \frac{1}{3}(3.14)(5)^2(7)$

$V \approx 183$



$h = 7$

$d = 10$

$r = 5$

A 70 cm^3

B 183 cm^3

C 549 cm^3

D 733 cm^3

3 Different Forms for Linear Equations

1) Slope-intercept Form: $y=mx + b$
2) Standard Form: $Ax +By = C$
3) Point-Slope Form: $y - y_1 = m (x - x_1)$

To graph an equation using intercepts.

1. Replace x in the equation with 0. This will give you the y intercept.
2. Replace y in the equation with 0. This will give you the x intercept.
3. Graph

Graph using intercepts the following equations:

1. $2x + 3y = 6$

2. $5x + 2y = 10$

Graph using intercepts the following equations:

1. $2x + 3y = 6$

y-int. let $x=0$ $2(0)+3y=6$

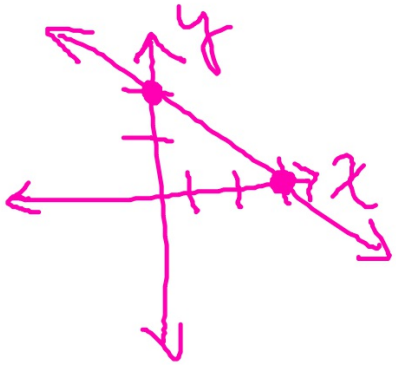
$(0,2)$ $0+3y=6$

$y=2$

x-int. let $y=0$ $2x+3(0)=6$

$(3,0)$ $2x+0=6$

$x=3$



2. $5x + 2y = 10$

y-int. let $x=0$ $5(0)+2y=10$

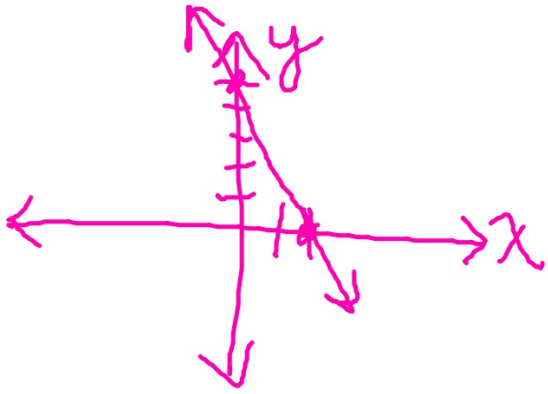
$(0,5)$ $2y=10$

$y=5$

x-int. let $y=0$ $5x+2(0)=10$

$(2,0)$ $5x=10$

$x=2$



Convert Standard Form to Slope Intercept Form and then graph

1. $2x + 3y = 6$

2. $3x + 7y = 21$

Convert Standard Form to Slope Intercept Form and then graph

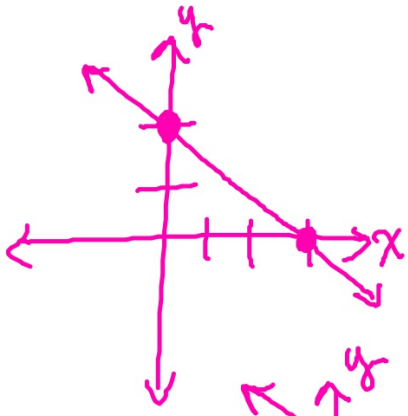
$y = mx + b$

1. $2x + 3y = 6$

$3y = -2x + 6$

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

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

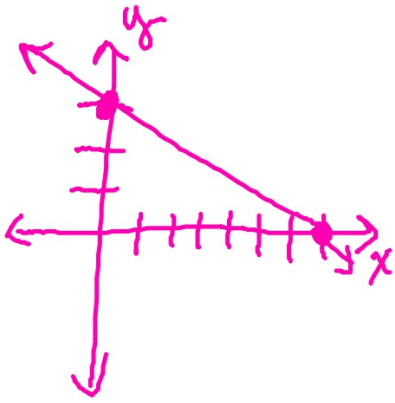


2. $3x + 7y = 21$

$7y = -3x + 21$

$y = -\frac{3}{7}x + 3$

$m = -\frac{3}{7}$, $b = 3$



Domain and Range

Dixi and Royd

{(1,5),(3,4),(5,-2),(7,0)}

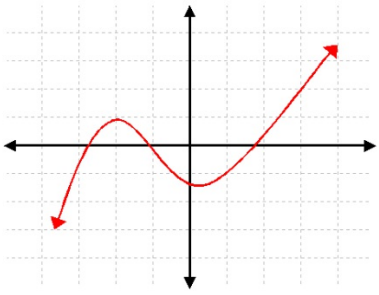
Domain: the first coordinates in each ordered pair in a relation. The x-values (listed from least to greatest!).

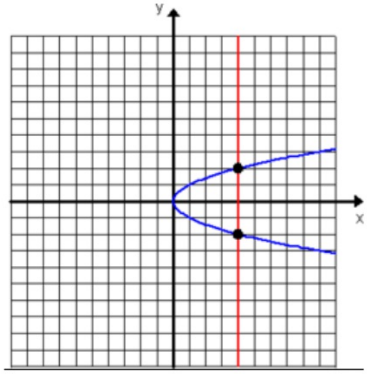
From above: {1, 3, 5, 7}

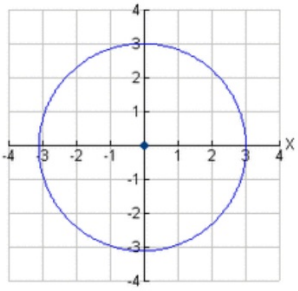
Range: the second coordinates in each ordered pair in a relation. The y-values(listed from least to greatest!).

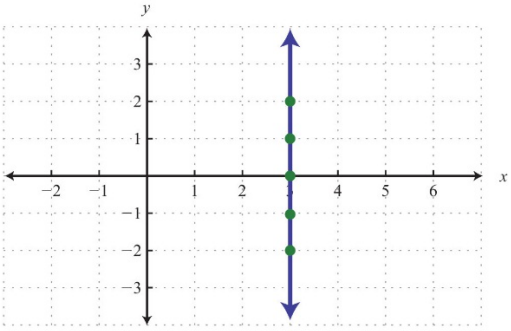
From above: {-2, 0, 4, 5}

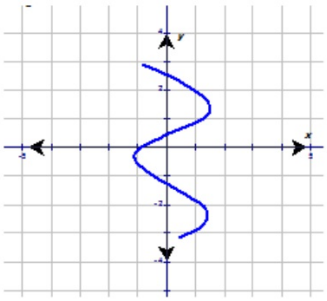
Vertical-Line Test: any vertical line passes through at most one point on the graph of a function.

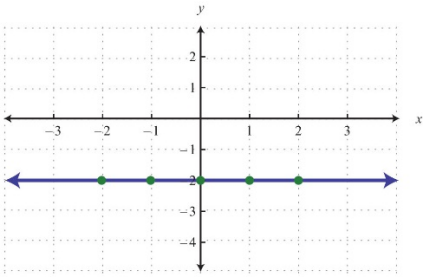




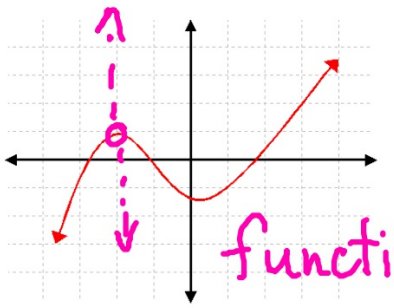




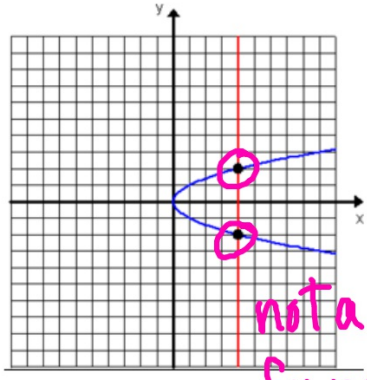




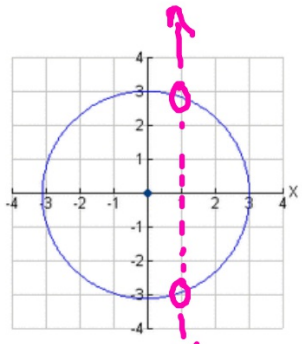
Vertical-Line Test: any vertical line passes through at most one point on the graph of a function.



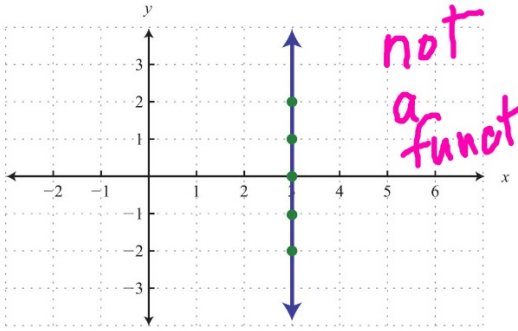
function



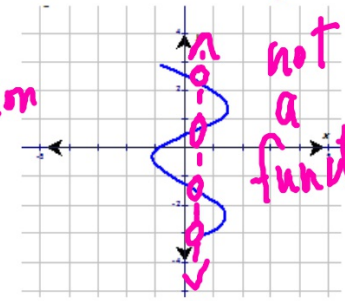
not a function



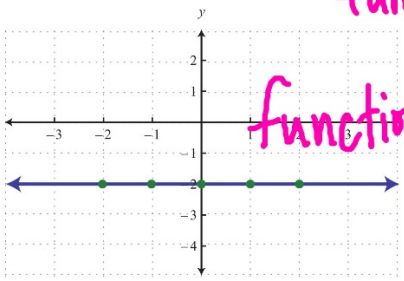
not a func.



not a function



not a function



function

Group Practice

Decide if each of the following represents a function. x's do not repeat

1. {(1, 3), (2, 5), (3, 6), (4, 12)}
2. {(0, 4), (0, 5), (1, 5)}
3. {(5, 1), (3, 1), (-2, 1), (4, 1)}
4. $y = 2x + 1$, if $x = \{1, 2, 3\}$
5. $y = x - 5$, if $x = \{2, 4, 6\}$

Name: _____ Date: _____ Period: _____

ERROR ANALYSIS TASK: A classmate finished his work quickly. His answers are below. Some of them are correct; some are incorrect. Identify which is which. Explain the mistakes he made on the incorrect answers.

Identify which of the following relations "is a function" or "is not a function".

a.

x	y
-3	-2
-3	7
2	1
4	6

YES – is a function

b.

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

YES – is a function

c.

x	y
-6	-1
-2	1
2	3
-6	9

NO – is NOT a function

d.

x	y
-2	-1
2	1
7	2
-7	-2

YES – is a function

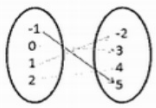
e. {(3, 1), (-3,-1) , (3,5) , (-2,4)}

YES – is a function

f. {(0,2) , (1,2) , (2,2) , (3,2) , (5,2)}

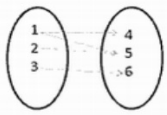
NO – is NOT a function

g.



YES – is a function

h.



NO – is NOT a function

a)_____

b)_____

c)_____

d)_____

http://tinyurl.com/SCMSfunctionspractice

Watch #12 on vertical line test

Homework

1. What is an equation of the line passing through the points (-1,-3) and (5,6)?

2. What is the equation of the line that contains point (3, -5) and has a slope of -3?

3. What is the slope and y-intercept of the following equation:

$2x - 3y + 6 = 0$

4. What is the slope and y-intercept of the following equation:

$4y + 2x = -8$

Word Problems

1. The temperature in a city began to decrease at a constant rate once a cold front began to move in. The temperature was 49^0 F after 2 hours and 39^0 F after 6 hours. Suppose x is the number of hours since the cold front began to move in, and y is the temperature in ^{0} F. What is the equation that models this situation?