Math 3, Classwork 28

WARM UP

1. Rewrite the expressions and do calculations in the column:

a) 4206 ÷ 6 =

b) 7, 210 × 36 =

2. Calculate:

a) 196dm – 5m 18cm + 2m 6dm5cm = _____

b) 4m 4mm – 25cm + 2m9mm = _____

3. Calculate:

560 ÷ 70 + 200 ÷ 20 = _____

280 ÷ 40 – 36 × 2 = _____

REVIEW

Inverse operations–are the two inverse operations "undo" each other.
Addition and subtraction are inverse operations.
Multiplication and division are inverse operations.

4 Solve the following equations using an inverse operation.

a) $2x + 14 = 24$ b) $x \div 8 + 25 = 35$ c) $2z - 1\frac{1}{4} = 3$

5. Collect the like items to simplify the following algebraic expressions:

$12a + 12b + 7b - 7a + 100 =$ _____

$25 + z + b + 5z + 11b - 13 =$ _____

6. Open parenthesis and simplify the expressions:

$5(20 - w) - 10(w + v) =$ _____

$4(d + 8) - 3(7 - d) =$ _____

$3(20 + z) - (7 - a + 3) =$ _____

7

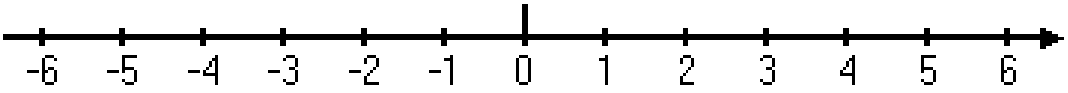
Calculate, use number line if needed (remember, when you should move to the right and when to the left):

a) $(-4) + (-3) + (-2) =$ _____

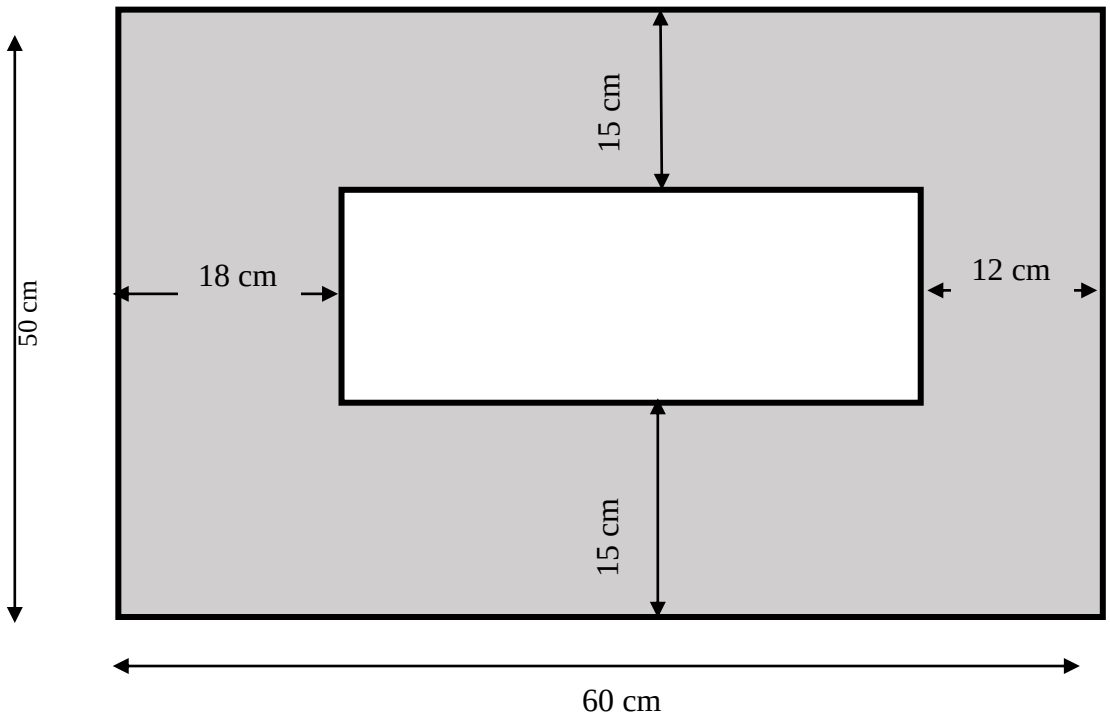
b) $4 - 3 - (-2) =$ _____

c) $(-6) + 6 + (-3) + 3 + (-2) + 3 =$ _____

d) $2 + 4 - 4 + 5 - 2 - 5 - 10 =$ _____



8. Find the area of the shaded shape.



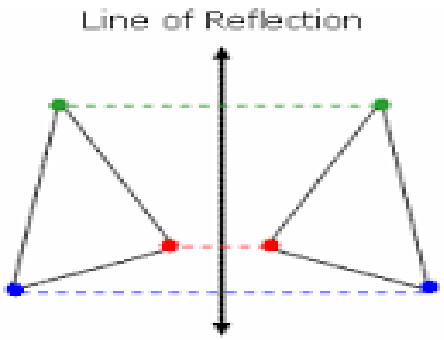
A = _____

A= _____

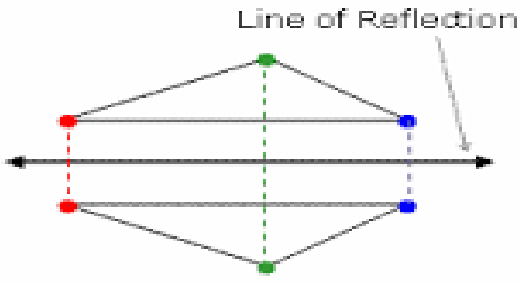
9 The reflection of the point (x,y) across the x-axis is the point $(x,-y)$.

The reflection of the point (x,y) across the y-axis is the point $(-x,y)$.

Notice that each original point and its image are the same distance away from the line of reflection. You may be able to simply "count" these distances on the grid.



Horizontal Reflection
(flips across)



Vertical Reflection
(flips up/down)

10

a) Find the coordinates of each vertex of triangle LKM

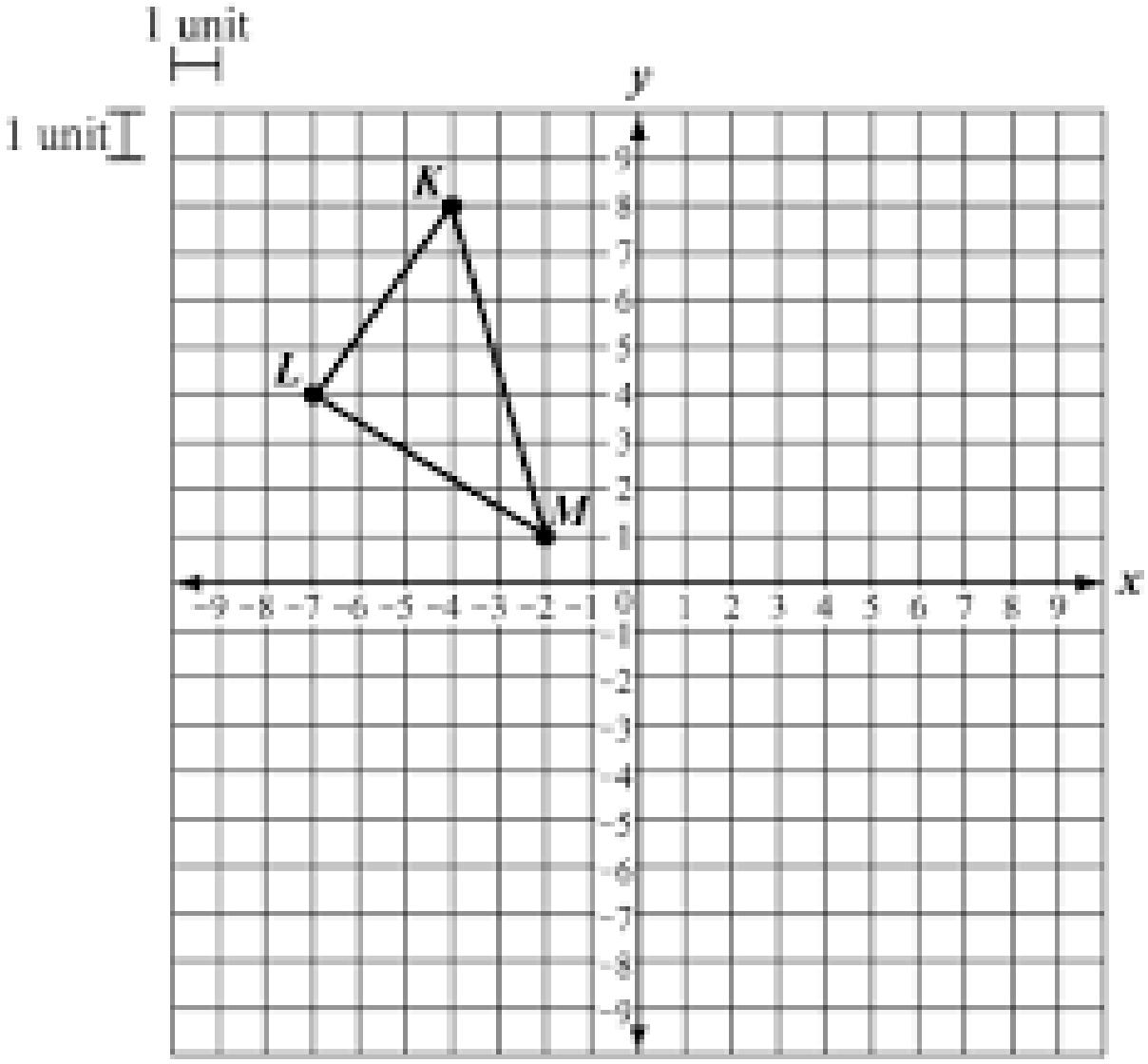
L (,) K (,) M (,)

b) Reflect this triangle horizontally (flip across y-axis) to get a triangle L'K'M'
Fine the coordinates of each vertex:

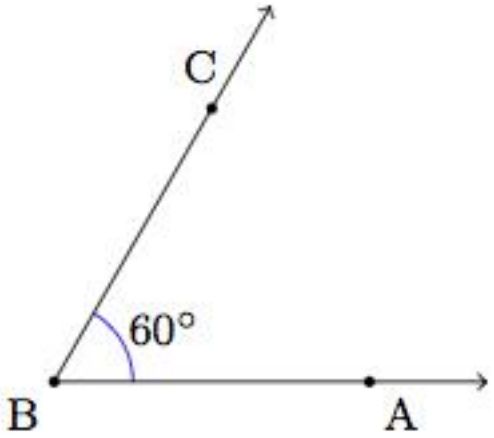
L' (,) K' (,) M' (,)

c) Reflect this triangle vertically (flip across x-axis) to get a triangle L"K"M"
Fine the coordinates of each vertex:

L" (,) K" (,) M" (,)



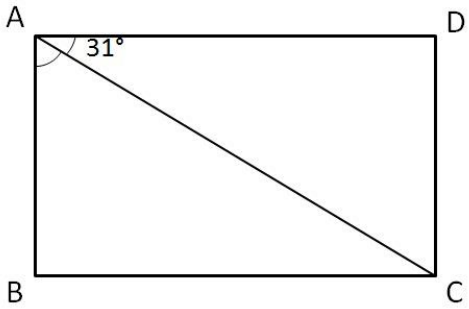
10 An angle below measures 60° degrees:



a) Draw another angle that measures 25° degrees. It should have the same vertex and share side *BA*.

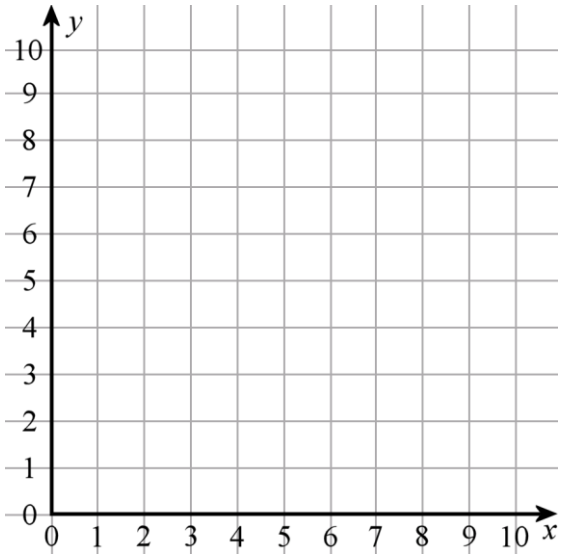
b) How many angles are there in the figure you drew? What are their measures?

11 a) In the figure, *ABCD* is a rectangle and ∠*CAD*=31°. Find ∠*BAC*.



∠*BAC* = _____

b) Use a compass.



1) Draw a circle with center point (5, 6) and a radius of 3 units.

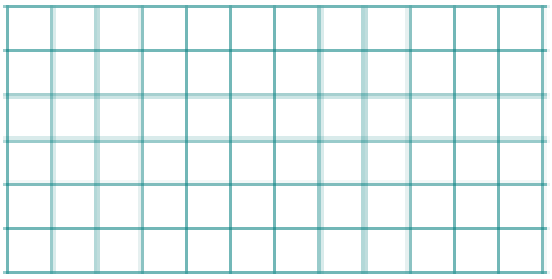
2) Draw another circle with the same center point but double the radius.

3) How many common points your second circle has with x-axis? _____

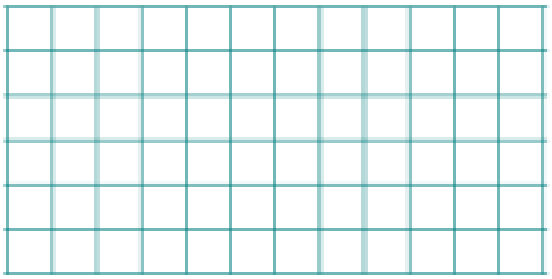
4) How many common points your second circle has with y-axis? _____

12 Write down a mathematical expression to solve the problems:

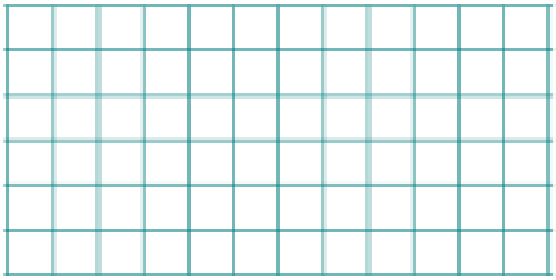
a) There is a total of 50kgs of potatoes packed in the 10 identical bags. How many kgs of potatoes are in ***x*** such bags?



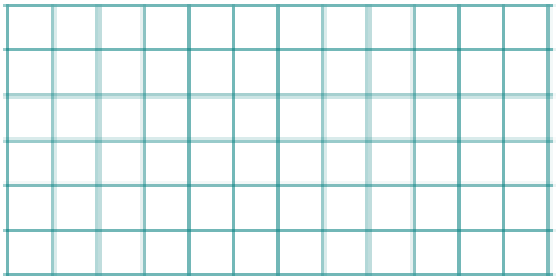
b) There are ***x*** kgs of potatoes packed in ***12*** identical bags. How many kgs of potatoes are in ***b*** such bags?



c) There are ***x*** kgs of potatoes packed equally into ***10*** bags. How many bags will be needed to pack ***z*** kgs of potatoes?



d) A construction crew repairs 600 meters of a road in one day. How much can be repaired in 9 days?



e) A construction crew repairs 600 meters of a road in one day. How much time is needed to repair 5km of the road?