Math 3, Classwork 28

WARM UP

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

a) 8,364 + 1,287 + 196 =

b) 700 – 432 – 128 =

c) 4206 ÷ 6 =

d) 7, 210 × 306 =

2. Calculate:

a) 96dm – 5m 18cm + 2m 65cm = _____

b) 4m 4mm – 25cm + 2m9mm = _____

3. Calculate:

560 ÷ 70 + 200 ÷ 20 = _____

280 ÷ 40 – 36 × 2 = _____

REVIEW

Inverse operations– A pair of inverse operations is defined as two operations that will be performed on a number or variable, that always results in the original number or variable. Another way to think of this is that the two inverse operations "undo" each other.
Addition and subtraction are inverse operations. Multiplication and division are inverse operations.
Inverse operation is useful in order to isolate the variables.
Example: $x - 2 = 6$

$x - 2 + 2 = 6 + 2$

$x = 8$

3. Solve the following equations using an inverse operation.

a) $2x - 14 = 24$ b) $y + 105 = 150$ c) $z - 1\frac{1}{4} = 3$

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

12a + 6b + 10b – 7a +35= _____

25 + a + b + 5a + 10b = _____

3 + 2x + 4 – x + 7x= _____

41 + 10a – 25 – 10x + 7a + 25x= _____

5. Open parenthesis and simplify the expressions:

(s + 3) + 4 = _____

(f + 4) – (a – 64) = _____

(n + b - d) – 94 = _____

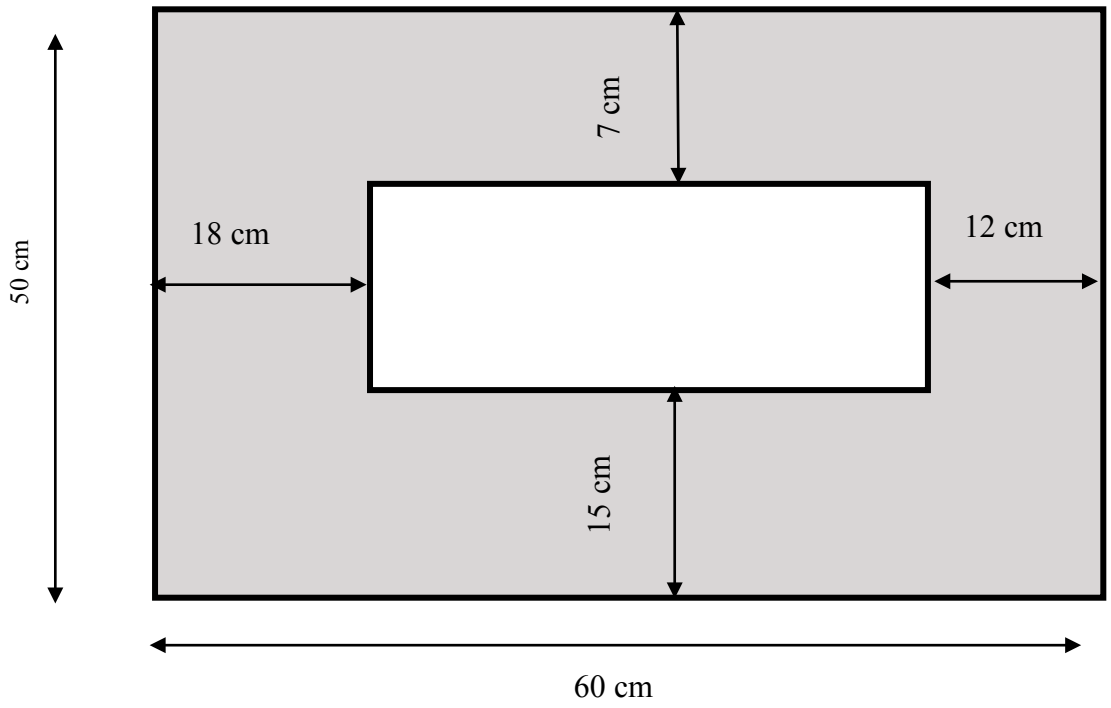
(20 – t)+ (w + v) = _____

(d + 8) – (7 – a) = _____

(20 + z) – (7 – a + b) = _____

6. Find the area of the shaded shape.

a)



A = _____

_____

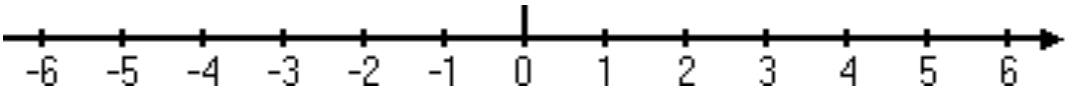
7. Calculate, use number line if needed (remember, when you should move to the right and when to the left):

a) (– 4) + (–3) + (–2) = _____

b) 4 – 3 – 2 = _____

c) (–6) + 6 + (–3) + 3 + (–2) + 3 = _____

d) 2 + 4 – 4 + 5 – 2 – 5 – 10 = _____

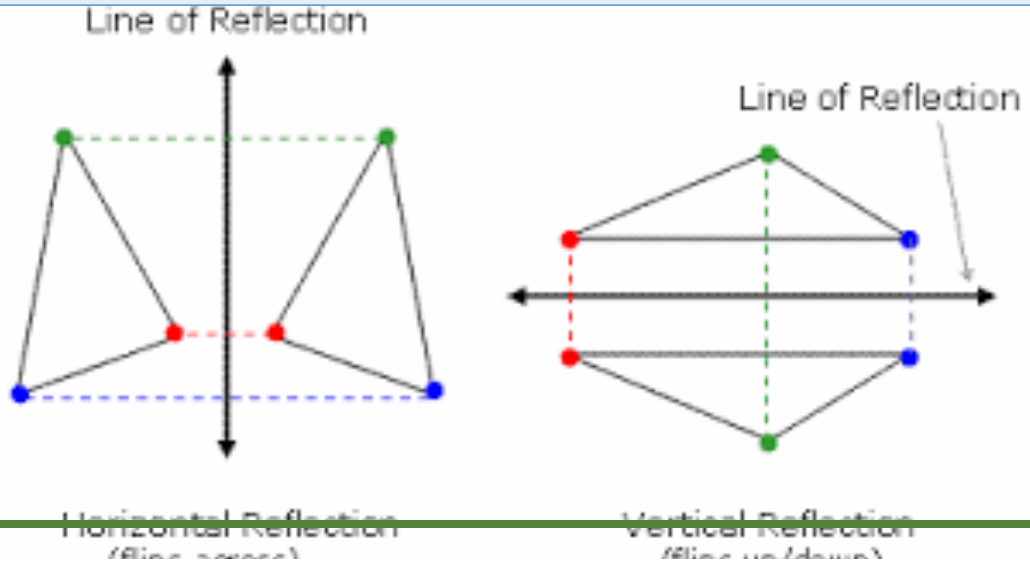


8. Ronav, Elliot and Milan plan to run together. They are arguing about how far to run. Ronav says, I run $1\frac{3}{6}$ miles each day. Elliot says, I can only run $1\frac{1}{2}$ miles. And Milan says, I can run $1\frac{2}{4}$ *miles* . Should they argue or this would be silly for them to argue who can run more? Draw a picture or a number line to support your reasoning.

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.



9.

a) Find the coordinates of each vertex of triangle LKM

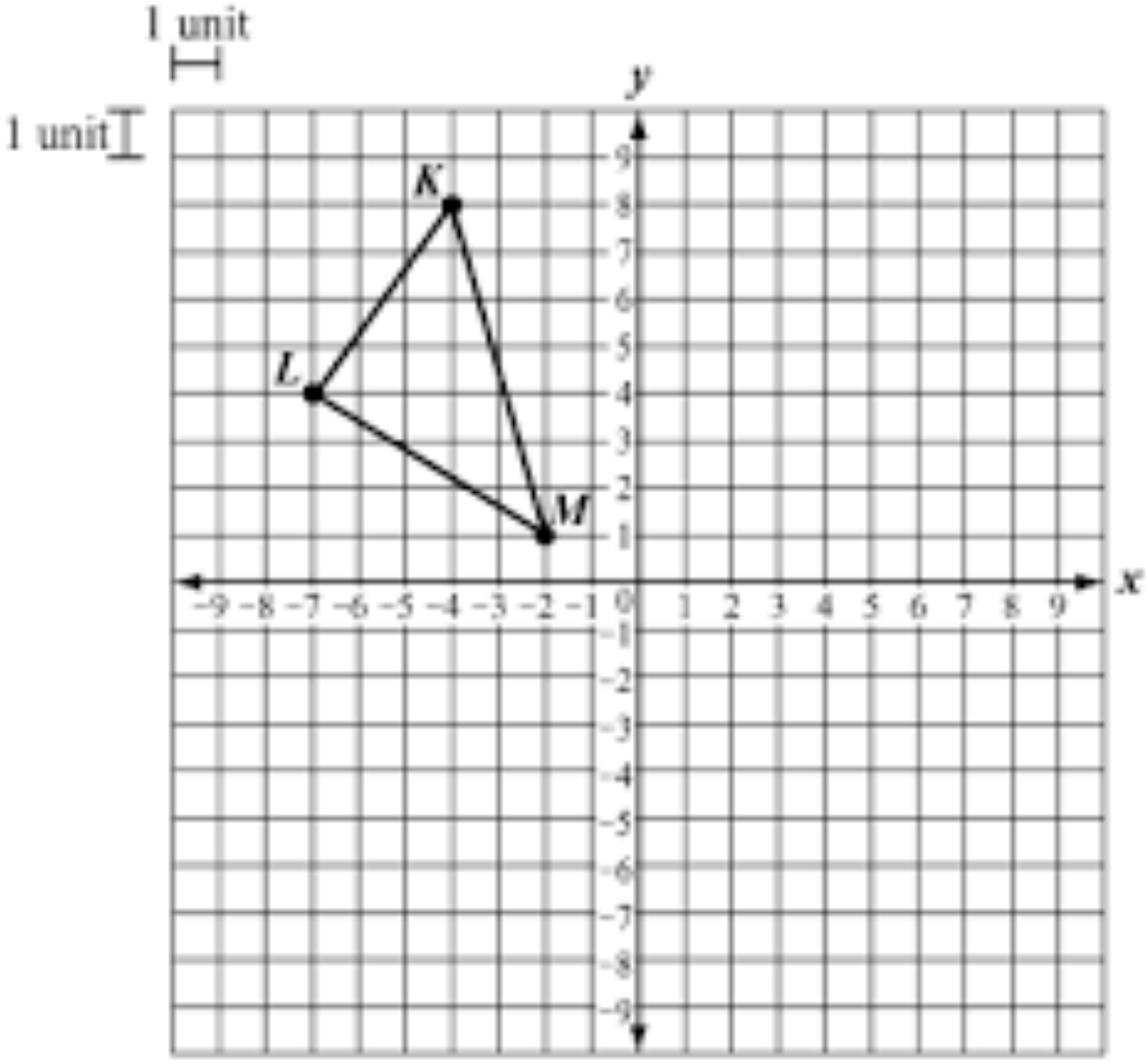
L (,) K (,) M (,)

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' (,)

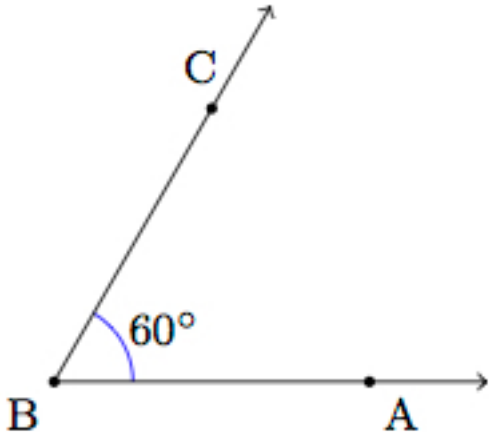
c) Reflect this triangle vertically (flip across x-axis) to get a triangle L"K"M"
Fine the coordinates of each vertex:

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



10.

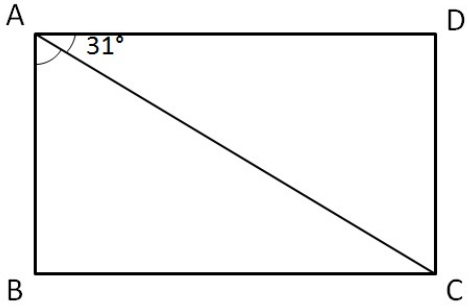
An angle below measures 60° degrees:



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

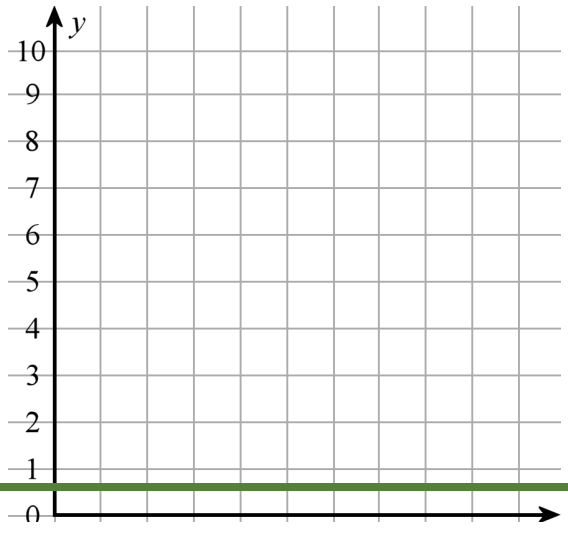
b) How many angles are there in the figure you drew? What are their measures?

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



∠*BAC* = _____

12.



Use a compass.

a) Draw a circle with center point (5, 6) and a radius of 2 units.

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