Math 3. Homework 28

1 What shape am I?

a) four sides; all sides equal; four right angles _____

b) four sides; opposite sides equal; four right angles _____

c) four sides; opposite sides parallel; no right angles _____

d) four sides; exactly two sides parallel _____

e) four sides; opposite sides equal; no sides perpendicular _____

f) four sides; opposite sides parallel; adjacent sides perpendicular _____

g) four sides; all sides equal; no sides perpendicular _____

h) four sides; no sides parallel; no sides perpendicular _____

2 Below is a drawing of a straight angle ∠BAE (remember that a straight angle is always 180°) . The angle ∠DAE equals 75° and the angle ∠BAC = 25°.

a) Find an angle ∠*CAD* =

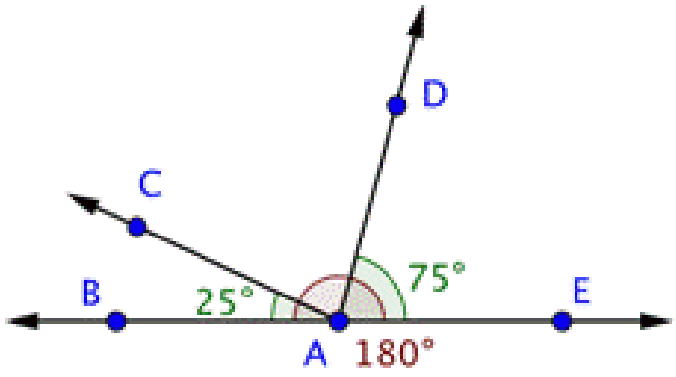
_____

b) Find an angle ∠*BAD* =

_____

a) Find an angle ∠*CAE* =

_____



3 Calculate (simplify to the lowest term where possible)

$\frac{12}{15} - \frac{3}{15} =$ $\frac{9}{50} + \frac{21}{50} =$ $\frac{18}{35} - \frac{13}{35} =$

4

a) Find the coordinates of each vertex of triangle QPR

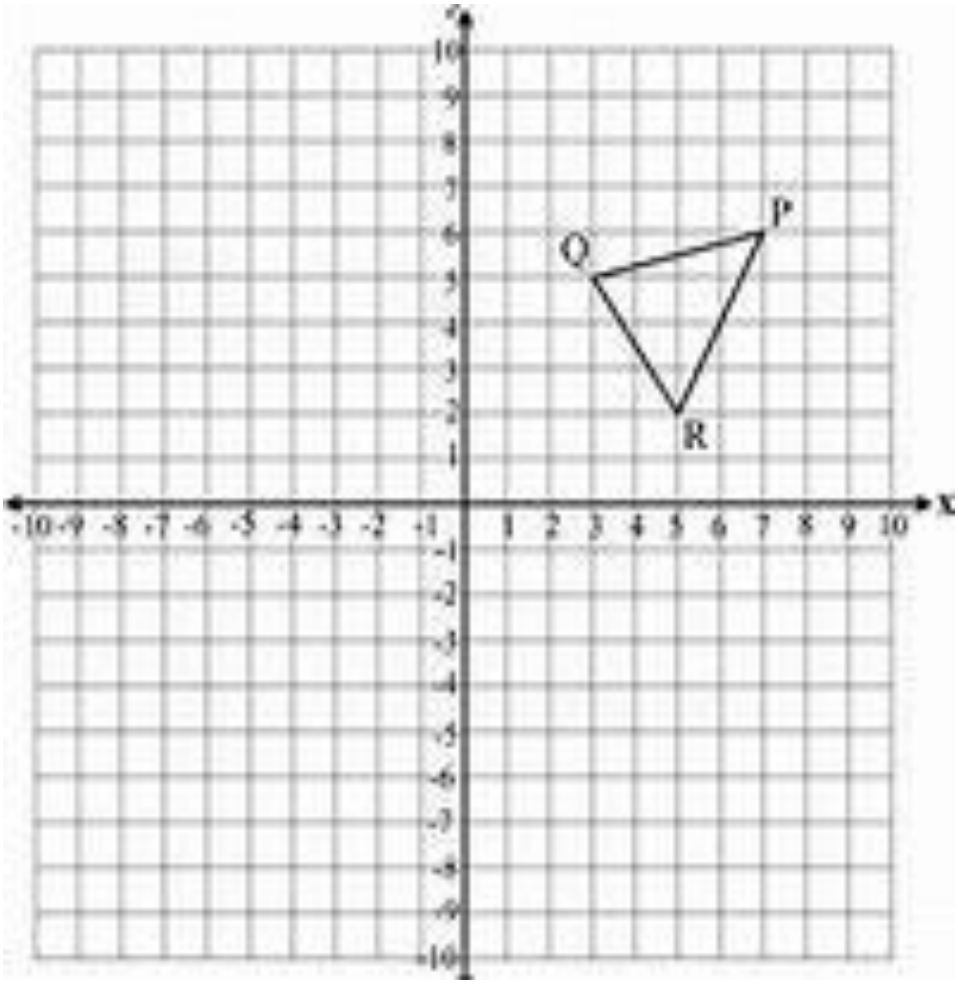
Q (,) P (,) R (,)

b) Reflect this triangle horizontally (flip across y-axis) to get a triangle Q'P'R'
Find the coordinates of each vertex:

Q' (,) P' (,) R' (,)

c) Reflect this triangle vertically (flip across x-axis) to get a triangle Q"P"R"
Find the coordinates of each vertex for reflected triangle L"K"M":

Q" (,) P" (,) R" (,)



5

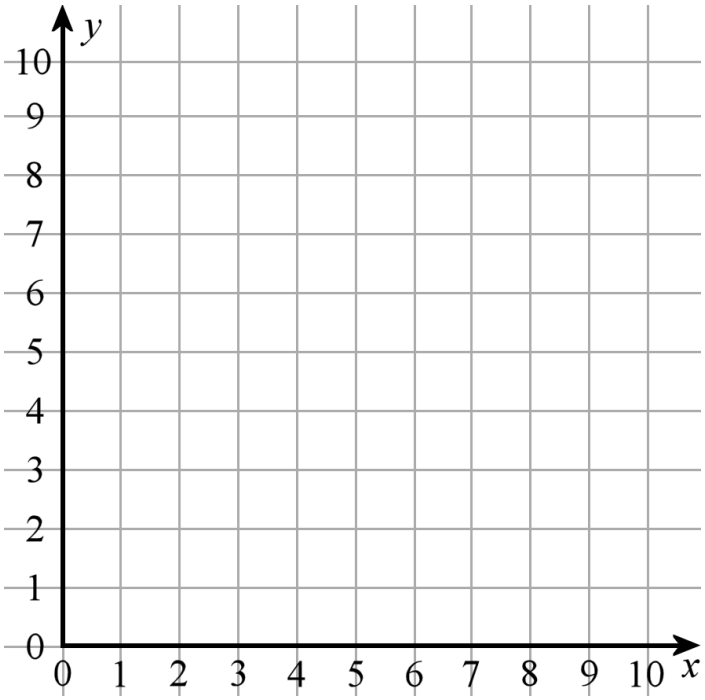
Insert the missing fraction:

a) $\_\_\_\_ + \frac{1}{6} = 1\frac{5}{6}$ b) $2\frac{3}{5} + \_\_\_\_ = 5\frac{4}{5}$ c) $\frac{3}{7} + \_\_\_\_ = 3\frac{4}{7}$

d) $\_\_\_\_ + \frac{3}{8} = 8\frac{5}{8}$ e) $\_\_\_\_ + 5\frac{2}{9} = 10\frac{4}{9}$ f) $\_\_\_\_ - \frac{4}{5} = 9\frac{1}{5}$

6

a) Draw a circle with center point (5,6) and a radius of 3 units.
b) Draw another circle with the same center point but double the radius.
c) How many common points your second circle has with x-axis? _____
d) How many common points your second circle has with y-axis? _____



7

Write down the expressions:

a) Milan spent $\$a$ for a soccer ball. It was \$14 less than he spent for his soccer cleats. Write and expression for a cleats's price.

_____

b) There are b boys in the class who play soccer, c boys in the class who play tennis and 4 boys who don't do any sport. Write an expression for a total number of boys in the class.

_____

c) The distance between your house and a school's bus stop is a meters, the distance between bus stop at school and your class is b meters. What is the distance you walk every day on your way to and from school?–

_____

8

Calculate:

5 + 3 =	5 + (–3) =	5 – 3 =	5 – (–3) =
–5 + 3 =	(–5) + (–3) =	(–5) – 3 =	(–5) – (–3) =

9 Calculate:

a) 2,501 + 4,359 - 325 =

b) 4,302 – 870 + 399 =

c) 2,536÷ 8 =

d) 126 × 35=

10 Solve the following equations using an inverse operation.

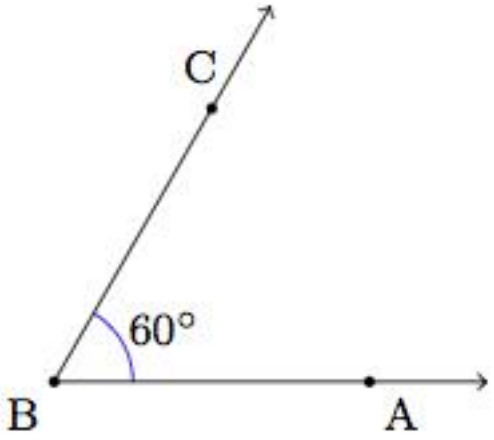
a) 4x + 35 = 5

b) x÷3 – 4 = 26

c) $4z + 5\frac{1}{2} = 6$

11

An angle below measures 60° degrees:

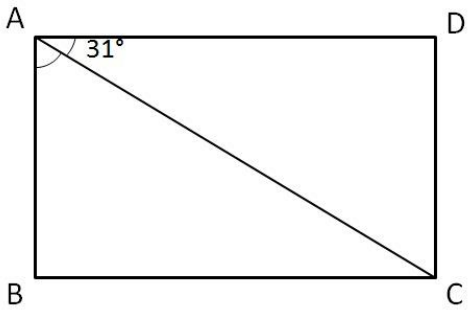


a) Draw another angle that measures 25° degrees. It should have the same vertex and share side *BA*.

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

12

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



∠*BAC* = _____

13

Open parenthesis and simplify the expressions:

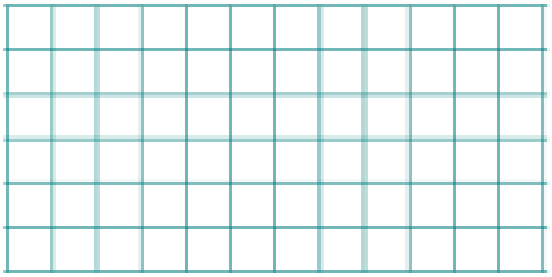
5(3 – a) +4(a – b + 10) = _____

10(d + 4) – 8(7 – d) = _____

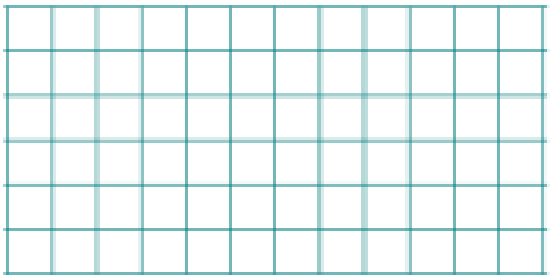
3(20 + z) –2(10 – z + a) = _____

14 Write down a mathematical expression to solve the problems:

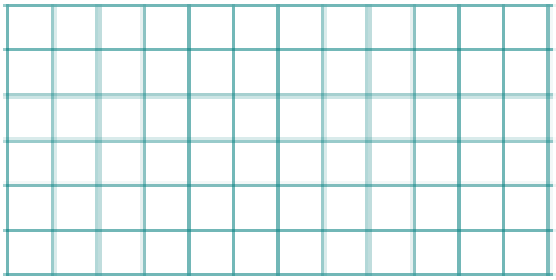
a) There is a total of 50kgs of potatoes packed in the 10 identical bags. How many kgs of potatoes are in ***x*** such bags?



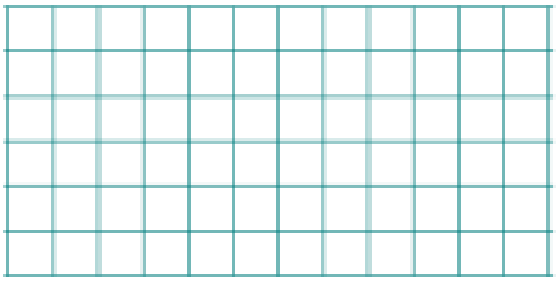
b) There are ***x*** kgs of potatoes packed in ***12*** identical bags. How many kgs of potatoes are in ***b*** such bags?



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?