Math 2 Homework 14

Calculate:

a) 999 + 1 = 199 + 1 = 79 + 1 = 629 + 1 =

1000 – 1 = 810 – 1= 500 – 1 = 1991 – 1 =

b) 95 – 21 – 3 = 56 – (35 + 8) = 100 – (28 + 16) =

c) 2000 + 400 + 30 + 1 = 7000 + 20 + 7 =

9000 + 30 + 3 = 1000 + 700 + 20 + 6 =

d) Calculate the fastest way (rewrite the expression to show your way of calculation):

(303 + 274) + 26 = 81 + (9 + 27) =

(437 +92) – 37 = (364 +415) – 264 =

Report the time you spent: _____ minutes

1

Practice inverse operations:

a) Daniel thought of a number. When he added 45 to the number, then subtract 80, he got 915. Which number did Daniel think of? _____

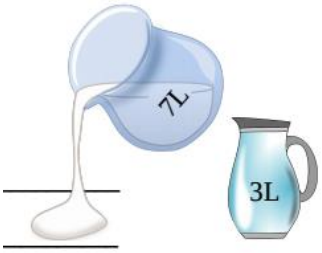
b) Veronica thought of a number. When she subtracted 615 from it and then added 65, she got 200. What number did Veronica think of? _____

c) Omar thought of a number, subtracted it from 770 and got 330. Which number did he think of?

_____

2

There are two jars: a 7-liter and a 3-liter. Explain the meaning of the following expressions:



7 + 3 _____

7 – 3 _____

3

a) Put all weights in order from the heaviest to the lightest:

2 kg, 1kg 900g, 250g, 25kg, 2,500g, 2kg 50g

_____

b) Put all lengths in order from the smallest to largest:

3m 3dm, 30dm, 333cm, 3dm 3cm, 303cm

_____

4

Let's count angles.

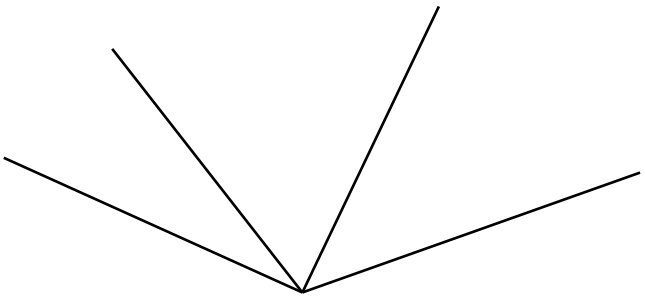
How many angles are on the sketch below? Name all angles using capital letters and

list all angles here: _____

list only obtuse angles here: _____

list only acute angles here: _____

If you are not sure, use the right angle template to confirm your answer:



5

What types of angles are formed by the hour hand and the minute hand on the clock face at the following times (simply tell if the angle is right, obtuse, acute or straight)?

a) 3 o'clock - angle _____ b) 4 o'clock - angle _____

c) half past 9 - angle _____ 11 o'clock - angle _____

HW 14 Algorithms. Review perimeter, parentheses.

6 What is the greatest number you can write in the box?

☐ + 8 < 12 11 – ☐ > 6 14 + ☐ < 20

100 > ☐ 9 ☐ 3 < 32 51 > 5 ☐

7 Using the squared piece of paper below, draw a rectangle with a length of 8 segments and a width of 6 segments.

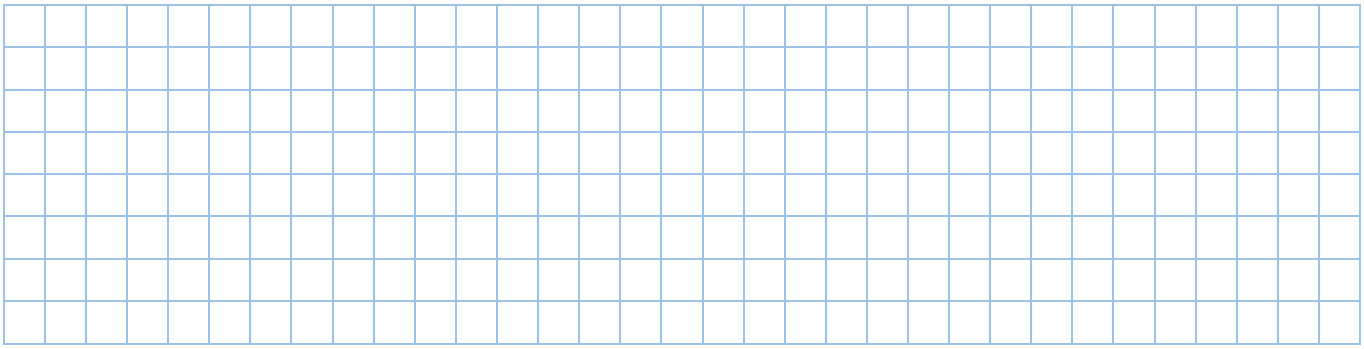
Find the perimeter of the rectangle you drew. P = _____

With one straight line, divide the rectangle into two equal rectangles.

Find the perimeter of each smaller rectangle. P_1 = _____

Now try to find a different line that will divide the rectangle into two equal rectangles.

Find the perimeter of each smaller rectangle. P_2 = _____



8 Compare:

$32 - x$ _____ $32 - (x + 2)$ $32 + x$ _____ $32 + (x + 2)$

$26 - y$ _____ $26 - (y - 3)$ $26 + y$ _____ $26 + (y - 3)$

$b - a$ _____ $b - (a - n)$ $b + a$ ____ $b + (a + m)$

$b - c$ _____ $b - (c - n)$ $b + c$ _____ $b + (c - m)$

9 Write the expression for each problem.

a) There were 10 fish in an aquarium, and then 8 more fish were added. How many fish are in the aquarium now? _____

b) There were ***m*** fish in an aquarium, and then 6 more fish were added. How many fish are in the aquarium now? _____

c) There were ***m*** fish in an aquarium, and then ***k*** more fish were added. How many fish are in the aquarium? _____

d) There are 16 fish in the first aquarium and 12 fish in the second aquarium.
How many more fish are in the first aquarium than in the second one? _____

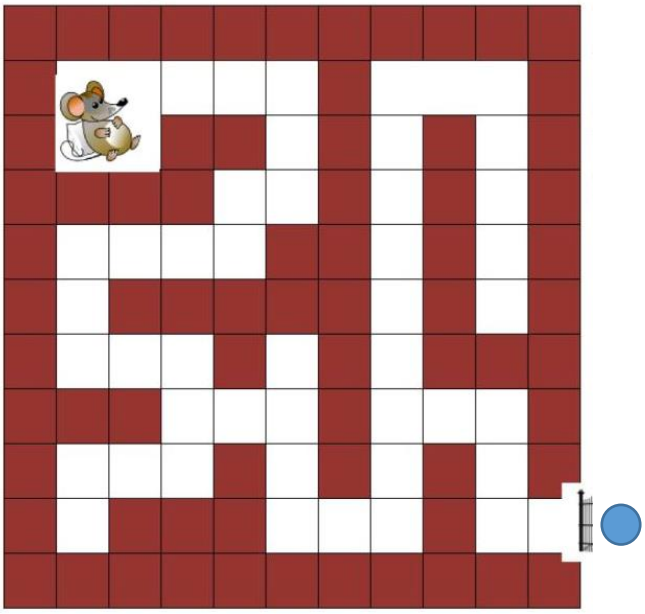
e) There are ***n*** fish in the first aquarium and ***p*** fish in the second aquarium. How many are more fish in the first aquarium than in the second one? _____

10

A little mouse, Pixie, invited friends to his birthday but forgot to explain how to get into his underground house. Write the algorithm using the arrows so that friends won't be lost and will get to the Pixie's birthday party.

Hint:

1. Stand outside the hole in the ground
2. ⇦ 2
3. ⇧ 2
4. ⇦ 2



11

Imagine that you need to explain to your friend (who doesn't attend SchoolNova) how to construct a line segment of a given length (ex. 5cm). Below write a step-by-step algorithm to teach your friend.

Hint: *1. Take a piece of paper (preferably a squared paper)*

2. Put a dot where the segment will begin

3.