## Math 2 Homework 9

1 Simplify by using the commutative property of addition and canceling the same terms with opposite signs.
Example: $37+b+11+a+11-b-a+1=b-b+a-a+11-11+37+1=38$
a) $4+\mathrm{a}+201-4-\mathrm{a}=$ $\qquad$
b) $a+11-11-a+b=$ $\qquad$

There are 5 daughters in the family. Each daughter has 1 brother. How many children are there in the family? $\qquad$
3. Calculate:

a) Connect all points to obtain different closed polygonal chains.

b) Connect the points to obtain different open polygonal chains containing 6 segments each.

5 Split each shape in two identical parts and color these parts red and green:


Compare using >, <, or $=$.
$56-c \square 65-c$

$$
a+25 \square 25+a
$$

$x-10-9 \square x-9$

$$
\begin{gathered}
27+1-d \square 72+d \\
340-0 \square 340+0
\end{gathered}
$$

$$
51-36 \square 52-37
$$

7. Answer the questions (use the diagram if it helps you):
a) A snake is faster than a deer. The deer is faster than an elephant. Who is the fastest?

b) A rock is bigger than a car. A car is bigger than a bicycle. Which object is the biggest?
small big
c) Daniel is older than Tim. Tim is younger than Charles. Charles is younger than Daniel. Mark is the oldest of four brothers. Which brother is the youngest?

Write the numbers $1,2,3,4,5$, and 6 into the circles so that the sum on the numbers along each side of the triangle would be the same.

9. Solve for $x$. Check your answers.
$35-x=62$
$\qquad$

$$
x+47=53
$$

$\qquad$
$\qquad$
$\qquad$
$\qquad$

You have a set of weights: 2,2 , and 5 kilograms. How can you balance a scale for different watermelon weights?
a) 7 kg : left scale $\qquad$ , right scale $\qquad$
b) 1 kg left scale $\qquad$ , right scale $\qquad$
c) 9 kg left scale $\qquad$ , right scale $\qquad$
d) 3 kg left scale $\qquad$ , right scale $\qquad$


Find the perimeter of the rectangle ABCD plotted on the drawing. Express the perimeter P (sum of lengths of all sides) in units of length.
Draw another rectangle KLMN next to the ABCD such as:
length of side $K L$ is one unit longer then $A B$ and length of side $L M$ two units bigger than $B C$.
What is the perimeter of the new rectangle KLMN?

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| $B$ |  |  |  |  |  |  |  | C |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| A |  |  |  |  |  |  |  | D | D |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Length of side $\overline{A B}=4$ units
Length of side $\overline{B C}=8$ units
$\mathrm{P}=$ $\qquad$

$$
\begin{aligned}
& \overline{K L}= \\
& \overline{L M}= \\
& \mathrm{P}= \\
& \hline
\end{aligned}
$$

12 Solve each problem and express the answers in cm :
a) The length of a newborn baby whale was 5 m 3 dm 2 cm .

Once he grew up, he was 32 m 6 dm 7 cm long! How much did he grow?

b) An ant crawled 16 m 4 dm 5 cm towards home. To get home, he had 9 m 1 dm 3 cm left to crawl. How far away was his home when he started?


Karl's rectangular vegetable garden is 20 meters by 45 meters and Anna's is 25 meters by 40 meters. Find perimeters of each garden and find whose garden is larger?
$\mathrm{P}_{1}($ Karl's garden $)=$ $\qquad$
$\mathrm{P}_{2}($ Anna's garden $)=$ $\qquad$
Find the row or column that contains each sequence.
Use different colors to show them.
a. triangle-rectangle-rectangle-circle
b. triangle-circle-rectangle-triangle
c. hexagon-triangle-triangle-circle
d. square-hexagon-rectangle-triangle
e. square-triangle-square-rectangle


John goes for a morning walk every day. He walks along a path whose total length is 600 meters. Find the length of the missing sides.

200m


