## Math 2 Homework 8

1 Find the sum using the commutative property of addition.
$3+6+9+12+15+18=$ $\qquad$
$4+7+10+13+16=$ $\qquad$

There are 12 liters of milk in a $12 L$ bucket. How can you share this milk equally between two families using two empty buckets: $3 L$ and $8 L$ ?

A pharmacy has an old balance scale, which has only two measuring weights: 30 grams and 5 grams. A pharmacist has to divide 300 grams of powder medicine into 3 small bags - 150 gram in the $1^{\text {st }}$ bag, 100 grams in the $2^{\text {nd }}$ bag and 50 grams in the $3^{\text {rd }}$ bag. How can he do it if he can only weigh 3 times?


Find the weights.

How much a bag weight?


One of the bottles is full and another one is empty. Find the weight of the empty one.

$\qquad$
$\qquad$

Alex has $\boldsymbol{a}$ books, Boris has $\boldsymbol{b}$ books, and Victor has $\boldsymbol{c}$ books. Explain the meanings of the following expressions:
$a+b$ how many books Alex and Boris had together.
$a+c$ $\qquad$
$a-c$ $\qquad$
$b+c$ $\qquad$
$a+b+c$ $\qquad$
$b-c$ $\qquad$

Compare using >, <, or $=$.
456-c $\square 365-c$
$207+d \square 720+d$
$340-0 \square 340+0$
$a+25 \square a+125$
$x-111 \square x-9$
$b-602 \square b-62$

7 Draw two closed curves, one inside the other. Draw an open curve that intersects each of the closed curves at two points. Label the intersection points with any letters you choose.

8 Solve for x . Use diagrams. Check your answers.

$$
800-x=162 \quad x+487=503 \quad x-58=679
$$


$\qquad$ $\xrightarrow{2}$ $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Write down the following expressions:
The sum of $\boldsymbol{m}$ and $\boldsymbol{n}$ $\qquad$
The difference between 34 and $\boldsymbol{x}$ $\qquad$
The difference between 200 and 48 $\qquad$
The sum of $\mathbf{3}$ and $\mathbf{1 8}$ $\qquad$

10 Calculate:


11
The distances between a tower, a tree, and a cave are shown in the drawing. What will you find out if you perform the following actions?
$15 \mathrm{~m}+15 \mathrm{~m} \quad$ distance from tower to tree and back
$15 \mathrm{~m}+45 \mathrm{~m}$
$45 \mathrm{~m}+35 \mathrm{~m}$
$15 \mathrm{~m}+35 \mathrm{~m}+45 \mathrm{~m}$


12 Compare:
$24 \mathrm{dm}=$ $\qquad$ 240 cm
$66 \mathrm{dm}=$ $\qquad$ 606 cm
$30 \mathrm{dm}=$ $\qquad$ 303 cm 1500 g $\qquad$ 15 kg

21 kg __ 210 g
700 g _ 70 kg

500 mL $\qquad$ 5L

12L $\qquad$ 120 mL
3L $\qquad$ 350 mL

