## Lesson № 24

1
Explain the meaningful expressions related to the story below.

East coast cats live 90 km from the West coast cats. Every day at noon each tribe sends a messenger to the other tribe. East coast cats are great runners so they can run $\mathbf{6} \mathbf{~ k m} / \mathbf{h}$. West coast cats cannot run as quick, so they ride bikes $9 \mathbf{k m} / \mathbf{h}$.


| $90: 9$ | How long $\ldots$ |
| :---: | :--- |
| $90: 6$ |  |
| $6+9$ |  |
| $6 \times 9$ |  |
| $6-9$ |  |
| $90:(6+9)$ |  |
| $12+90:(6+9)$ | When $\ldots$ |
| $12:(6+9)$ |  |

2 Calculate:


| $6+3=$ | $6+(-3)=$ | $6-3=$ | $6-(-3)=$ |
| :--- | :--- | :--- | :--- |
| $(-2)+5=$ | $(-2)+(-5)=$ | $(-2)-5=$ | $(-2)-(-5)=$ |
| $0+5=$ | $0+(-5)=$ | $0-5=$ | $0-(-5)=$ |

## 3

Do the arithmetics with "magic numbers" that are plotted on the "magic number line"

| $\Delta$ | $\Theta$ | $\Lambda$ | $\Sigma$ | $\Omega$ | $\Pi$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

$\Sigma+1=$
$\Sigma+(-1)=$
$\Sigma+(-1)=$
$\Sigma-(-1)=$
$\Omega-\Sigma=$
$\Sigma-\Omega=$
$\Sigma-\Theta=$
$\Theta-\Sigma=$

4 Analyze additional equalities with a whole and its parts.

|  |  | 15 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ |  |  |  |  | ) | ) |  |  |
|  | 6 |  | 9 |  |  |  |  |  |
| $6+$ | $9=$ | 15 |  |  |  | 15 | 5 |  |
|  |  |  |  |  |  | \% |  |  |
| $9+$ | $6=$ | 15 |  |  |  |  |  | 9 |
|  |  |  |  |  | 6 | 6 |  |  |
| 15 | 9 | $=6$ |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 9 | 15 | $=$ |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 15 | - 6 | $=9$ |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 6-1 | 15 | $=$ |  |  |  |  |  |  |



5 Use number lines to add fractions with like denominators.


$$
\frac{1}{5}+\frac{2}{5}=
$$

$$
\frac{1}{4}+\frac{2}{4}=
$$

$$
\frac{1}{8}+\frac{1}{8}+\frac{3}{8}=
$$

$$
\frac{1}{n}+\frac{1}{n}+\frac{1}{n}+\frac{1}{n}=
$$

$$
\frac{1}{m}+\frac{1}{m}+\frac{2}{m}+\frac{4}{m}=
$$

$1-\frac{2}{5}=$
$1-\frac{3}{4}=$

$$
1-\frac{3}{7}=
$$

Arbitrary Fraction of a Unit $\frac{m}{n}$.


6 Calculate and express the results fractions:
$2: 9=\frac{\square}{\square}$
$5: 9=\frac{\square}{\square}$
$7: 9=\frac{\square}{\square}$
$k: 9=\frac{\square}{\square}$
$3: 5=\frac{\square}{\square}$
$6: 5=\frac{\square}{\square}$
$11: 5=\frac{\square}{\square}$
$\boldsymbol{m}: 5=\frac{\square}{\square}$
$1: \boldsymbol{m}=\frac{\square}{\square}$
$\boldsymbol{q}: \boldsymbol{m}=\frac{\square}{\square}$
$\boldsymbol{n}: 7=\frac{\square}{\square}$
$\boldsymbol{k}: 4=\frac{\square}{\square}$

Finding a fraction of a number.


7 There are 35 marbles in the bag. $1 / 5$ of these marbles is green. $2 / 5$ of the marbles are red. The rest of them are orange.

How many green marbles are in the bag?


How many red marbles are in the bag?
$\qquad$

How many orange marbles are in the bag?

## 8 Solve the equations:




## Angle Sums of Polygons.

## 9



How large is an angle
of a square? $\qquad$

What is the angle sum of a hexagon? $\qquad$
How large is an angle of a regular hexagon?
 pentagon? $\qquad$
How large is an angle of a regular pentagon? $\qquad$

$\qquad$

