## Lesson 4. Classwork

## WARM-UP

1. Find the missing number:

| 5 | 4 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- |$\quad$| 9 | 6 | 3 |
| :--- | :--- | :--- |
| 7 |  | 2 |

2. Using a diagram for addition: $7+5=12$

Number 12 is a sum; 5 and 7 are parts of the sum or addends. To find one addend you should subtract another one from the sum.

Find $\mathbf{x}$ using a diagram:


$$
14+x=16
$$



3 Both $\square$ stand for the same digit. What digit is it?

$$
\begin{array}{r}
2 \square 09 \\
+\quad 134 \square \\
\hline 4258
\end{array}
$$

## REVIEW

$(\mathrm{AB})$ or $A B^{\text {- }}$ straight line through points A and B .
$[A B)$ or $\overrightarrow{A B}$ - ray $A B$, starting at the point $A$ and passing through point $B$
$[A B]$ or $\overline{A B}$ - line segment with endpoints $A$ and $B$
$A B \| C D$ - lines $A B$ and $C D$ are parallel.
4. How many straight lines, rays, and line segments can you find in each figure?

5. Using a ruler extend lines $\mathbf{a}$ and $\mathbf{b}$. Find and label the intersection points. Which two lines are parallel to each other?

5. a) There are 12 girls in the class of 25 students. How many boys are in this class?
b) Jamie picked some number of apples, then she picked 5 more apples. Now she has 12 apples. How many apples did Jamie pick at first?
c) Melinda collects $x$ stamps. Jimmy collects 12 more stamps than Melinda. How many stamps did Jimmy collect?
d) Nickolas had $y$ paper clips. He gave 5 paper clips to his sister. How many paperclips does he have left?
e) Each side of the square is $x$ centimeters. What is the perimeter of the square?
f) Jenny bought $z$ books $\$ 8$ each. How much did she spend? If she had $\$ 100$, how much did she have left?

## Place value.

A number is made of one or more digits. The number 683, for example. Is made of the digits 6,8 , and 3 . The $1^{\text {st }}$ digit shows how many hundreds there are. Digit 6 has a value of 6 hundreds, 8 has a value of 8 tens and 3 -3ones.

The position of a digit in the number is very important, its value depends on it.

100 ones $=10$ tens $=1$ hundred
6.

Calculate:
2 hundreds and 8 tens $=280$
3 hundreds, 5 tens and 2 ones $=$ $\qquad$
7 hundreds, 0 tens and 8 ones $=$ $\qquad$
5 hundreds, 9 tens and 0 ones $=$ $\qquad$

## NEW MATERIAL

7. Examine your ruler. Notice that it has markings on both sides.


## $\longmapsto$

## 1 centimeter

8. Measure a friend's left foot using paper, a pencil, and a ruler. Record the results in inches and cm .
9. Using your ruler draw a ray starting at point A. Place three points B, C and D on the ray so that $[\mathrm{AB}]=5$ centimeters, $[\mathrm{AC}]=3$ centimeters and $[\mathrm{AD}]=7$ centimeters. Find the length of the segments $[\mathrm{CB}],[\mathrm{BD}]$ and $[\mathrm{CD}]$.
$[\mathrm{CB}]=$ $\qquad$ $\mathrm{cm} \quad[\mathrm{BD}]=$ $\qquad$ cm
$[C D]=$ $\qquad$ cm

10. Convert using examples:

| $120 \mathrm{~cm}=1 \mathrm{~m}+20 \mathrm{~cm}$ | $2 \mathrm{~m}=200 \mathrm{~cm}=20 \mathrm{dm}$ | $3 \mathrm{dm}=30 \mathrm{~cm}$ |
| :---: | :---: | :---: |
| $208 \mathrm{~cm}=$ | $5 \mathrm{~m}=$ | $21 \mathrm{dm}=$ |
| $333 \mathrm{~cm}=$ | $3 \mathrm{~m}=$ | $40 \mathrm{dm}=$ |

11. Take a look at the picture below. What is the difference between two curved lines you see here?


Curves can be "open" and "closed".
Open curve is a curve with end points (in other words, the ends don't join up).


Close curve has no end points.

9. Find all closed curves on the picture below. List them here $\qquad$
Now, using you pencil turn all open curves into closed ones.

10. Amanda, Joe, Alex and Zara each have different color cars - red, blue, white and black. Using the hints below, determine who has which car?
a) Amanda's car is not red or white
b) Joe's car is not blue or white.
c) Alex's car is not black or blue.
d) Zara's car is red.
11. Bill, John, Fred, and Jim are married to one of Mrs. Brown, Mrs. Green, Mrs. Black and Mrs. White.
a) Mrs. Brown's husband first name does not begin with J.
b) Mrs. Black's husband has a name that does not have the same letter twice
c) The first name of Mrs. White's husband has 3 letters.

## Challenge yourself

12. The numbers on each side of the rectangle add up to 1000 . What number does the star stand for?


The sum of the numbers on each line is 17 .
13.

Fill in the empty circles using numbers 1,2,3,4,5,6,7. Each number can be used only once.


