## Lesson 5. Classwork

## WARM-UP

1. Find the result using mental math:

| $42+17-17=$ | $57+24-23=$ | $63-18+20=$ |
| :--- | :--- | :--- |
| $29+14-14=$ | $68+19-20=$ | $72-49+50=$ |
| $27+46-46=$ | $19+34-36=$ | $87-39+42=$ |

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:


$$
14+x=16
$$



16


## REVIEW

## 100 ones $=10$ tens $=1$ hundred

3. 
4. 

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 $=$ $\qquad$
Mental math. Calculate:

$$
\begin{array}{ll}
200+300+100= & 900-500-300= \\
800-600+200= & 700-100+200= \\
500+100-400= & 600+300-900=
\end{array}
$$

5. 

Solve for x using a diagram and check your answers:
$x+400=500$
$\mathrm{x}=$

$600+\mathrm{x}=900$
$\mathrm{x}=$

$x-300=400$
$700-\mathrm{x}=200$
$\mathrm{x}=$


$$
x-800=0
$$

$\mathrm{x}=$


Lesson 5 Addition of 2- and 3- digit numbers, parallel and intersecting lines
6. How to add two-digit numbers:

Place one number above the other number so that the tens' place digits and ones' place digits are lined up. Draw a line under the bottom number.
Add the ones' place digits ( $3+5=8$ ).
43
$+55$
8
Add the numbers in the tens' place column $\mathbf{( 4 + 5 = 9 )}$ and place the answer below the line and to the left of the ones' place sum.
43
$+55$
98
Calculate:


## NEW MATERIAL

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


1 Inch

$\longmapsto$

## 1 centimeter

Lesson 5 Addition of 2- and 3-digit numbers, parallel and intersecting lines
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 $\mathrm{B}, \mathrm{C}$ 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 $[\mathrm{CD}]$.
[CB] = $\qquad$ cm
[BD] = $\qquad$ cm
[CD] = $\qquad$ cm

A

Using your ruler draw:
Two line segments, which intersect at point $K$
Two line segments, which do NOT intersect and are not parallel
Two rays, which do not intersect


10. Convert using examples:
$120 \mathrm{~cm}=1 \mathrm{~m}+20 \mathrm{~cm}$
$2 \mathrm{~m}=200 \mathrm{~cm}=20 \mathrm{dm}$
$3 \mathrm{dm}=30 \mathrm{~cm}$
$208 \mathrm{~cm}=$ $\qquad$ $5 \mathrm{~m}=$ $\qquad$ $21 \mathrm{dm}=$ $\qquad$
$333 \mathrm{~cm}=$ $\qquad$
$3 \mathrm{~m}=$ $\qquad$
$40 \mathrm{dm}=$ $\qquad$

## Challenge yourself

11. 

One penny out of three is fake. It is lighter than the others. How can you identify the fake coin by using a balance scale like the one shown in the picture? You can only weigh once!


## Did you know ...

The metric system was first developed in France during the French Revolution. A French law passed in 1795 defined five units of measure. Three of these names are still in use today. They are the meter, which is the unit of length, the gram that is the unit of mass and the liter, which is the unit of volume.

The United States, Myanmar (Burma) and Liberia do not use the metric system, making up 5\% of the world 's population not using the system.

In 1960 the rules for the metric system were revised. The revised system was called the "International System of Units" (which is often written "SI" for short). The definition of SI also included rules for writing SI quantities. These rules are the same for all languages.

In the metric system, length is measured in meters. The symbol for the meter is the letter "m". The meter was originally defined as being $1 / 10,000,000$ of the distance between the North Pole and the Equator on the meridian that passed through Paris. In 1799, a platinum bar that was equal to this length was made and became the "prototype meter"

In the metric system, all units have a "symbol". Symbols are a shorthand way of writing the names of units.

People write "kilometre" in the United Kingdom.
People write "kilometer" in the United States.
People write "quilómetro" in Portugal.
People write " $\chi \iota \lambda \iota o ́ \mu \varepsilon \tau \rho \alpha$ " in Greece.
Everybody uses the symbol "km" for "kilometer".

