Homework for Lesson № 2

Square Decimeter and Square Meter

$1\ m = 10\ dm = 100\ cm$

$1\ m^2 = 100\ dm^2 = 10{,}000\ cm^2$

1 m = 10 dm = 100 cm

	1 dm²		100 cm²						

1 Square meter:

$2\ m^2 = $ _____ dm^2

$300\ dm^2 = $ _____ m^2

$500\ dm^2 = $ _____ m^2

$7\ m^2 = $ _____ cm^2

$900\ dm^2 = $ _____ m^2

2 Compare:

$200\ cm^2\ \square\ 3\ dm^2$ $500\ dm^2\ \square\ 5\ m^2$ $30\ dm^2\ \square\ 1\ m^2$

$300\ dm^2\ \square\ 300\ m^2$ $70\ cm^2\ \square\ 7\ dm^2$ $20\ m^2\ \square\ 200\ cm^2$

$7\ m^2\ \square\ 700\ dm^2$ $9\ m^2\ \square\ 900\ cm^2$ $9\ dm^2\ \square\ 900\ cm^2$

$600\ dm^2\ \square\ 8\ m^2$ $6\ dm^2\ \square\ 80\ cm^2$ $4\ m^2\ \square\ 400\ cm^2$

3 Convert:

$400\ cm = $ _____ dm $400\ cm^2 = $ _____ dm^2 $400\ cm = $ _____ m

$700\ dm^2 = $ _____ m^2 $2\ m = $ _____ $cm = $ ___ dm $6\ m^2 = $ _____ dm^2

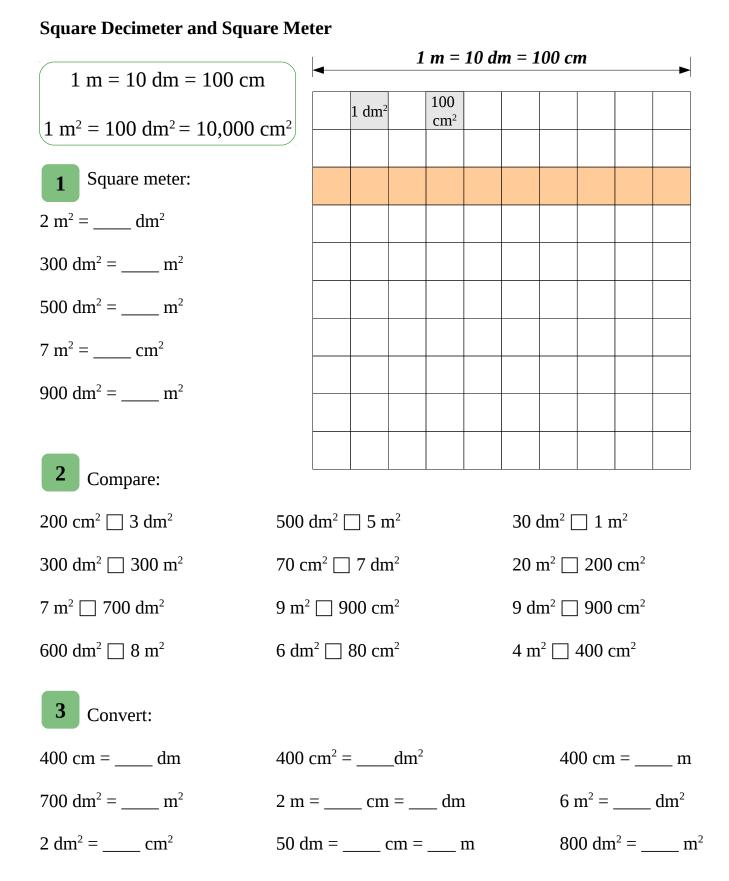$2\ dm^2 = $ _____ cm^2 $50\ dm = $ _____ $cm = $ ___ m $800\ dm^2 = $ _____ m^2

4 **Mixed Word Problems**

A basket contains 5 oranges. Another basket contains *x* oranges. How many oranges are in both baskets?

_____

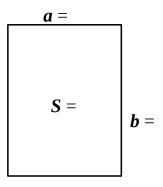Each box contains 12 pencils. How many pencils are in *x* such boxes?

_____

A can contains 5 cookies. Another can contains *x* more cookies than the first one. How many cookies are in both cans?
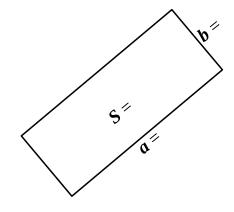
_____

A bicycle moves 20 km each hour. How far will it move in *q* hours?

_____

Cookies are packed 4 per box. How many boxes there are if there are *y* cookies?

_____

5 Measure the rectangles and find their areas:

a =

S =

b =

b =

S =

a =

Equations

6 **In your notebook** solve the equations below. Use auxiliary drawings if you need.

$27 - x = 18$ $y + 300 = 800$ $z - 312 = 188$

7 **Expressions and Programs:**

- Determine the order of operations in the expressions below.
- **In your notebook** write programs to compute the values of these expressions.
- Show how each step transforms the original expression like in the provided sample.

a). $y \times 4 - 5$ *b*). $z - x : t + 7$ *c*). $(z - x) : t + 7$

> ② ① ③
> *Sample:* $a + (15 - x) + 12$
>
> 1: $15 - x$ $a + ① + 12$
>
> 2: $a + ①$ $② + 12$
>
> 3: $② + 12$ $③$

8 **Four equities on addition and subtraction.**

$16 + 24 = 40$ $27 + 5 =$

$24 + \quad =$ $+ \quad =$

$40 - 24 =$ $- \quad =$

$40 - \quad =$ $- \quad =$

9 Replacements:

- Use replacement to simplify the following equations.
- Write the transformed equations according to the sample.

$$x : 5 - 2 = 3 \quad \xrightarrow{\;y\;=\;x:5\;} \quad y - 2 = 3$$

$$27 - p \bullet 2 = 9 \quad \xrightarrow{\;z = p \bullet 2\;} \quad \boxed{}$$

$$x : 3 + 2 = 6 \quad \xrightarrow{\;q\; =\;} \quad \boxed{}$$

$$24 : w + 4 = 8 \quad \longrightarrow \quad \boxed{}$$

Equations and operations:

10 Use operations to analyze and solve the following equations:

$x + 5 = 15$

$x =$

$x =$

$$x \;\underset{-\,5}{\overset{+\,5}{\rightleftarrows}}\; \boxed{}$$

$y - 8 = 7$

$y =$

$y =$

$$y \;\overset{-\,8}{\rightleftarrows}\; \boxed{}$$

$q : 5 = 7$

$$q \;\overset{:5}{\rightleftarrows}\; \boxed{}$$

11 Find the answer without calculations:

$8 \times 7 : 7 =$ $9 \times 7 : 7 =$ $w \times 7 : 7 =$

$25 : 5 \times 5 =$ $35 : 5 \times 5 =$ $x : 5 \times 5 =$

12 Calculate:

$$\begin{array}{r} 6\;1\;4 \\ -\;3\;2\;9 \\ \hline \end{array} \qquad \begin{array}{r} 4\;0\;7 \\ -\;3\;0\;9 \\ \hline \end{array} \qquad \begin{array}{r} 5\;0\;2 \\ +\;2\;3\;5 \\ \hline \end{array} \qquad \begin{array}{r} 7\;0\;0 \\ +\;5\;2\;1 \\ \hline \end{array}$$