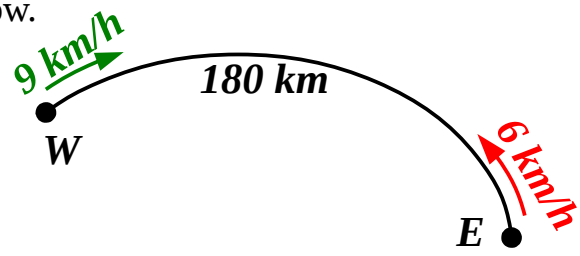
Homework for Lesson № 24

1 Answer the questions related to the story below.



*East coast cats live **180 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 **6 km/h**. West coast cats cannot run as quick, so they ride bikes **9 km/h**.*

How long does it take a West coast messenger to bike to the East coast?

_____

How long does it take an East coast messenger to run to the West coast?

_____

How fast do the messengers approach each other?

_____

When do the messengers to meet?

_____

How far from the West coast do they meet?

_____

2 Calculate:

7 + 2 =	7 + (–2) =	7 – 2 =	7 – (–2) =
(–7) + 2 =	(–7) + (–2) =	(–7) – 2 =	(–7) – (–2) =
2 + 7 =	2 + (–7) =	2 – 7 =	2 – (–7) =

3 Do in you notebook and copy your answers here:

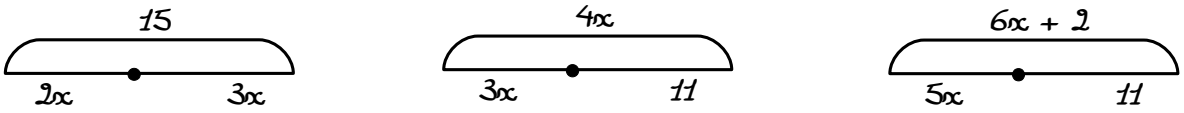
a). 1005 ÷ 15 = _____ 8520 × 1400 = _____ 7410 × 780 = _____

b). Solve the equations.

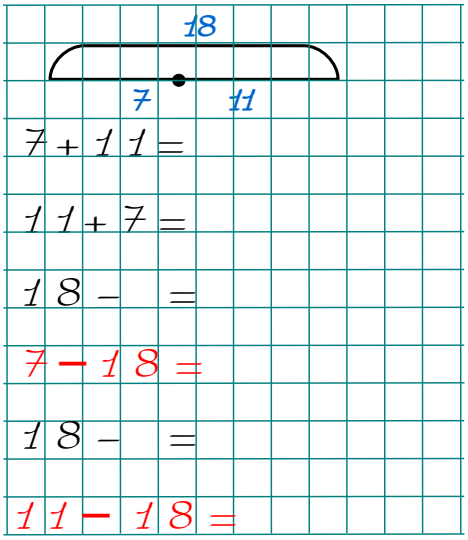
$43 = 7 - 3x$ $153 : (y - 12) = 9$ $6 \cdot (w + 9) = 114$

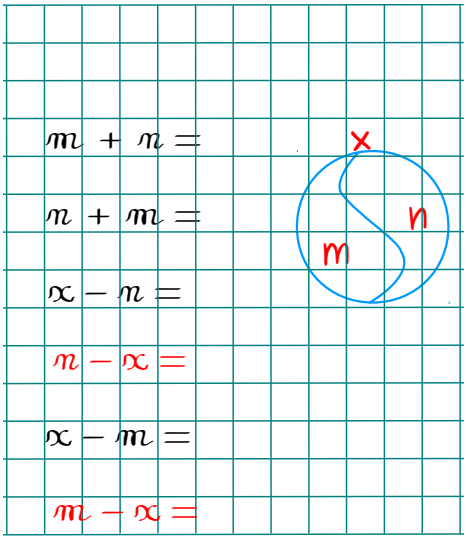
x = _____ y = _____ w = _____

c).* Write equations based on the drawings and solve them:



4 Complete 6 possible equalities:





5 Do the arithmetics with “magic numbers” plotted on the “magic number line”

$\Lambda + 2 =$ $\Lambda + (-2) =$

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

$\Sigma - \Lambda =$ $\Lambda - \Sigma =$ $\Sigma - \Omega =$ $\Omega - \Sigma =$ $\Theta - \Sigma =$

6 Solve the equations:

$\frac{3}{5}x = 24$

$\frac{1}{5}x =$

$x =$

$x =$ ✔

$\frac{1}{7}x - 5 = 1$

$\frac{1}{7}x =$

$x =$

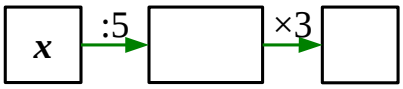
$x =$ ✔

$12 - \frac{1}{5}x = 8$

$\frac{1}{5}x =$

$x =$

$x =$ ✔



7 Calculate:

$3 : 8 = \frac{\square}{\square}$ $\quad 4 : 3 = \frac{\square}{\square}$ $\quad 5 : 7 = \frac{\square}{\square}$ $\quad 11 : 2 = \frac{\square}{\square}$

$6 : 5 = \frac{\square}{\square}$ $\quad 2 : 7 = \frac{\square}{\square}$ $\quad 9 : 4 = \frac{\square}{\square}$ $\quad 1 : 3 = \frac{\square}{\square}$

$1 : m = \frac{\square}{\square}$ $\quad n : 7 = \frac{\square}{\square}$ $\quad k : 4 = \frac{\square}{\square}$ $\quad q : p = \frac{\square}{\square}$

$\frac{1}{7} + \frac{3}{7} =$ $\quad \frac{1}{9} + \frac{4}{9} =$ $\quad \frac{1}{9} + \frac{2}{9} + \frac{4}{9} =$

$\frac{3}{8} + \frac{1}{8} + \frac{1}{8} =$ $\quad \frac{1}{n} + \frac{1}{n} + \frac{1}{n} + \frac{3}{n} =$ $\quad \frac{2}{m} + \frac{4}{m} + \frac{2}{m} + \frac{4}{m} =$

$1 - \frac{3}{5} =$ $\quad 1 - \frac{4}{7} =$ $\quad 1 - \frac{4}{9} =$

$1 - \frac{3}{8} =$ $\quad 1 - \frac{1}{12} =$ $\quad 1 - \frac{5}{9} =$

8 Express fractions of an hour in minutes (1 hour = 60 minutes):

$\frac{3}{4}$ hour = 60 min × $\frac{\square}{\square}$ = min

$\frac{1}{6}$ hour = 60 min × $\frac{\square}{\square}$ = min

$\frac{3}{10}$ hour = 60 min × $\frac{\square}{\square}$ = min

$\frac{2}{5}$ hour = 60 min × $\frac{\square}{\square}$ = min

$\frac{7}{12}$ hour = 60 min × $\frac{\square}{\square}$ = min

$\frac{1}{30}$ hour = 60 min × $\frac{\square}{\square}$ = min

9 Calculate according to the sample:

$\frac{1}{2}$ of 20 is 20 × $\frac{1}{2}$ = 10

$\frac{3}{4}$ of 20 is

$\frac{2}{5}$ of 30 is

$\frac{2}{7}$ of 14 is

$\frac{1}{5}$ of 25 is

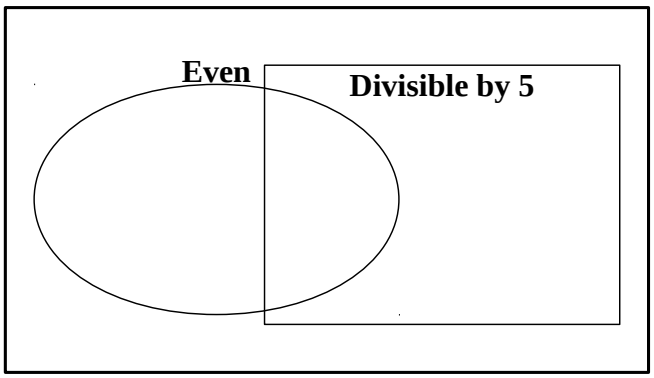
$\frac{1}{9}$ of 72 is

$\frac{3}{8}$ of 16 is

10 Set **A** contains several numbers. Sort them into the table and place correctly into the Venn diagram.

A = {2, 10, 5, 13, 30, 40, 27, 15, 100}

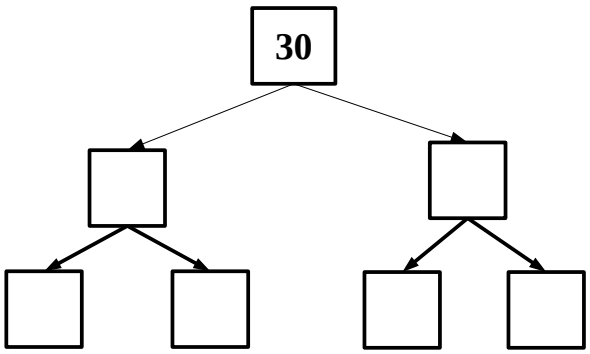
	Divisible by 5	Not divisible by 5
Even		
Odd		



11* LJ, PY, JM and FT found a treasure chest. There are 9999 gold coins in that chest. They want to split it in such a way that each of them gets an odd number of coins. Will they be able they do this?

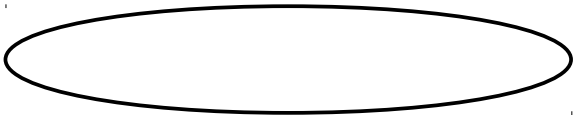
12 Using the tree method find the sets of prime factors for each of the following numbers: 30, 75, 24, 16. Write these factors into Venn Diagrams.

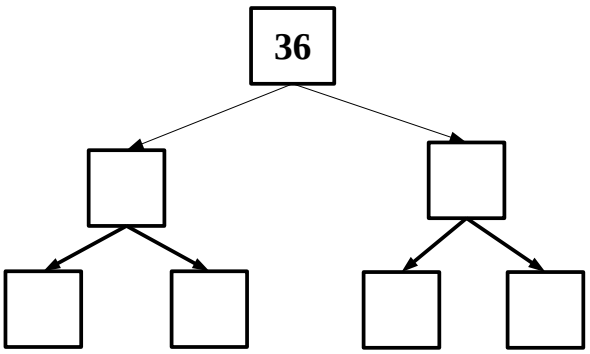
Note, sometimes you might not need all squares. Other times you might actually have to draw additional squares to complete the task.



30 = __ × __ ×__ ×__

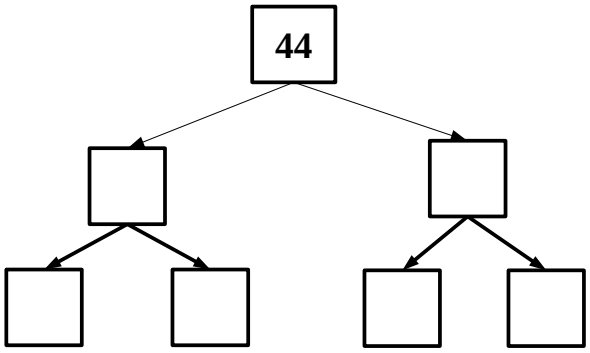
PF30





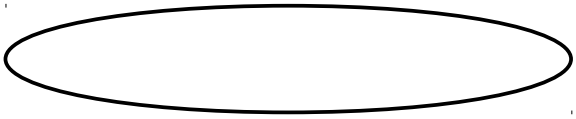
36 = __ × __ ×__ ×__

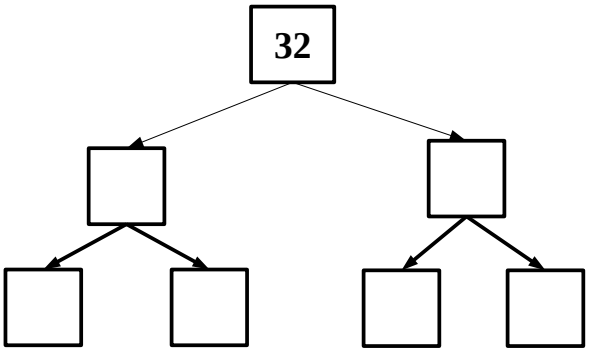
PF36



44 = __ × __ ×__ ×__

PF44





32 = __ × __ ×__ ×__

PF32