

### Homework #3.

Due on October 15, 2017

1. Solve the following equations:

a.  $\frac{1}{3} + z = \frac{2}{3}$

b.  $\frac{3}{4} + y = 1$

c.  $\frac{5}{7} - x = \frac{4}{7}$

2. The price of one kilogram of cookies is 12 dollars. What will be the cost of

a.  $\frac{1}{4}$  of a kilogram

b.  $\frac{2}{3}$  of a kilogram

c.  $\frac{3}{4}$  of a kilogram

d.  $\frac{7}{6}$  of a kilogram

3. Mark with color pencil

a. Line  $\overleftrightarrow{AB}$



b. Line segment  $\overline{AB}$



c. Ray  $\overrightarrow{AB}$



d. Ray  $\overrightarrow{BA}$



4. Draw all possible position of a circle and a straight line on a plane. How many common points can the circle and the line have? (To draw circles, use compass, to draw lines always use ruler!)
5. Draw the line  $a$  and mark points A, B, C, D, K on the line  $a$  so that
  - a. Point C belongs to the segment [AB];
  - b. Point D belongs to the ray AB and doesn't belongs to the segment [AB];
  - c. Point K belongs to the ray BA and doesn't belongs to the segment [AB];
6. Match the name with its picture

**1. Point**

**2. Line segment**

**3. Line**

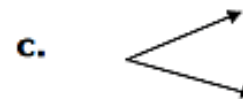
**4. Ray**

**5. Parallel lines**

**6. Perpendicular lines**

**7. Angle**

**8. Midpoint**



7. Solve the following equations:

a.  $3z - 11 = 16$

b.  $62 + 2y + 5 = 81$

c.  $101 - 4x = 21$

8. Peter spent 2 hours doing his homework.  $\frac{1}{3}$  of this time, he spent doing his math homework and  $\frac{1}{4}$  of the remaining time he spent on the history assignment. How many minutes did Peter spent on his history assignment and how many minutes did he spent doing his math homework?

9. Solve the problem:

a.  $\frac{1}{7}$  of all students in the class is 4. How many students are there in the class?

b.  $\frac{2}{5}$  of all students in a class is 10. How many students are there in a class?

11. Compare

a. What is bigger, the number  $c$  or  $\frac{2}{3}$  of the number  $c$ ? Why?

b. What is bigger, the number  $b$  or  $\frac{3}{2}$  of the number  $b$ ? Why?

c. What is bigger,  $\frac{2}{3}$  of a number  $m$  or  $\frac{3}{2}$  of a number  $m$ ? Why?

We do not have classes next week! You will have 2 weeks to complete your homework!

