Math 4e. Homework 8.

1. Which numbers are marked on the number lines below:
a)

b)

c)

d)

2. Evaluate (try to do it by convenient way) :
a. $1.2+2.3+3.4+4.5+5.6+6.7+7.8$;
b. $2.3+3.4+4.5-5.6+6.7+7.8+8.5+9.2$;
c. $1.7+3.3+7.72+3.28+1.11+8.89$;
d. $18.8+19+12.2+11.4+0.6+11$;
3. On a graph paper draw a number line, use 10 squares as a unit. Mark points with coordinates $0.1,0.5,0.7,1.2,1.3,1.9$.
4. Write decimals as fractions and evaluate the following expressions:

Example:

$$
\frac{1}{3}+0.12=\frac{1}{3}+\frac{12}{100}=\frac{1}{3}+\frac{3}{25}=\frac{25}{75}+\frac{9}{75}=\frac{34}{75}
$$

a. $\frac{2}{3}+0.5$;
b. $\frac{1}{3} \cdot 0.9$;
c. $\frac{3}{16} \cdot 0.16$
d. $0.6-\frac{2 ;}{5}$
e. $0.4: \frac{2}{7}$;
f. $\frac{9}{20}: 0.03$
5. Evaluate:
a. $25-30$;
b. $25+(-30)$;
c. $25-(-30)$;
d. $25-(+30)$;
e. $25+30$;
6. On the picture below, every arm of the balance is in equili6brium. (The horizontal bars are suspended at their midpoints.) Identical shapes have identical masses. The mass of the square is 1 kg . What are the masses of the other shapes?

7. Which part of 1 m is 1 cm ?

Which part of 1 km is 1 m ?
Which part of 1 cm is 1 mm ?
Which part of 1 m is 1 dm ?
Which part of 1 kg is 1 g ?
Which part of 1 g is 1 mg ?

Example: $1 \mathrm{~cm} .=0.01 \mathrm{~m}$,
(Hint: kilo- means $\times 1000$, 1 kilometer $=1000$ meters .
milli- means $\div 1000,1$ millimeter $=\frac{1}{1000}(0.001)$ meter
centi- means $\div 100$,
deci- means $\div 10$ )
8. 1 kilogram of candies costs 16 dollars. How much
a. 0.5 kg will cost?
b. 1.2 kg will cost?
c. 0.75 kg will cost?
d. 0.4 kg will cost?
e. 2.5 kg will cost?
9. Fill the tables.

| $\mathbf{b}$ | $\mathbf{c}$ | $\boldsymbol{b}+\boldsymbol{c}$ |
| :---: | :---: | :---: |
| $\frac{1}{10}$ | $\frac{2}{5}$ |  |
| $\frac{1}{3}$ |  | $\frac{1}{2}$ |
|  | $\frac{1}{5}$ | $\frac{1}{4}$ |


| $\mathbf{b}$ | $\mathbf{c}$ | $\boldsymbol{b}-\boldsymbol{c}$ |
| :---: | :---: | :---: |
| $\frac{1}{2}$ | $\frac{1}{7}$ |  |
| $\frac{5}{8}$ |  | $\frac{1}{4}$ |
|  | $\frac{1}{5}$ | $\frac{1}{2}$ |

10. Fill up the empty places for the equality to hold (distributive property)
a. $\quad 10+\square \cdot x=5 \cdot(\square+x)$
b. $20 a+\square=\square \cdot(4 a+1)$
c. $320 a+250 b=\square \cdot(32 a+\square)$
d. $a b+b c=\square \cdot(a+\square)$
