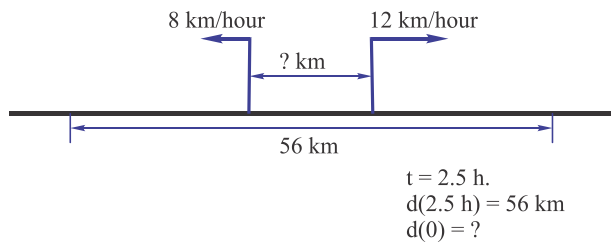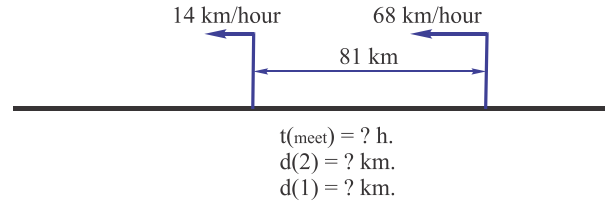Math 4a. Class work 21.

1. Andrew is walking along a narrow bridge. When Andrew passes exactly $\frac{1}{3}$ of the length of the bridge he notices a cyclist on the road to the bridge heading after him. If Andrew will starts walking toward the cyclist, they will meet at the beginning of the bridge. If he will continue toward the end of the bridge, the cyclist will catch up with him at the end of the bridge. How many times is the speed of the cyclist higher than the speed of the walker?

2. Come up with the word problems corresponding to the pictures below and solve them:
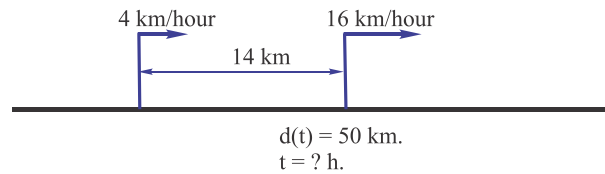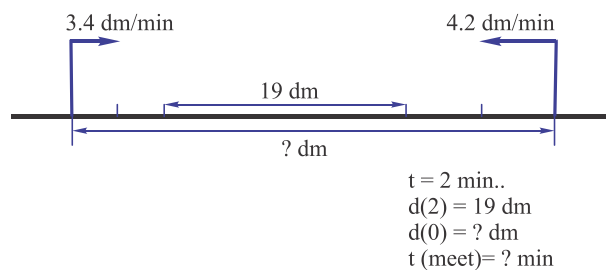
   a.

   8 km/hour   12 km/hour

   ? km

   56 km

   t = 2.5 h.
   d(2.5 h) = 56 km
   d(0) = ?

   b.

   14 km/hour   68 km/hour

   81 km

   t(meet) = ? h.
   d(2) = ? km.
   d(1) = ? km.

   c.

   4 km/hour   16 km/hour

   14 km

   d(t) = 50 km.
   t = ? h.

   d.

   3.4 dm/min   4.2 dm/min

   19 dm

   ? dm

   t = 2 min..
   d(2) = 19 dm
   d(0) = ? dm
   t (meet)= ? min

3. What can move with the following speed:

$$1.5\frac{km}{min}, \qquad 0.5\frac{km}{s}, \qquad 5\frac{m}{s}, \qquad 70\frac{m}{min}$$

4. Evaluate:

   a. $0.36 + \frac{1}{2}$;

   b. $5.8 - \frac{3}{4}$;

   c. $\frac{2}{5} : 0.001$;

   d. $7.2 \cdot \frac{1}{100}$;

   e. $\frac{2}{3} + 0.6$;

   f. $1\frac{1}{6} - 0.5$;

   g. $0.3 \cdot \frac{5}{9}$;

   h. $\frac{8}{11} : 0.4$

   i. $3\frac{4}{5} - 1.8$;

   j. $2.2 : \frac{11}{15}$;

   k. $4.2 : 3\frac{1}{2}$;

   l. $5.384 - 4\frac{3}{20}$

5. Peter visited his grandma. Grandma's house is 5 miles away from the Peter's house on the same very straight street. He walked to the grandma house with the constant speed of 3 mile/h, spent 2 hours at the grandma's house and went back home with the speed of 2 mile/h. On a graph paper draw how distance between Peter and his house changing with time, and how the distance Peter walked is changing with time.