Math 4d. Classwork 15.

1. Two cars start moving towards each other at the same time from the two cities, $A$ and $B$. The distance between the cities is 180 km . The speed of the car that departed from the city $A$ is $50 \mathrm{~km} / \mathrm{h}$, the speed of the car that left from the city $B$ is $70 \mathrm{~km} / \mathrm{h}$. In how many hours will they meet?


How far from the city A they will meet?
2. Two cars start moving at the same time in the same direction from cities $A$ and $B$, as shown in the picture below.
$\underset{\sim}{\text { A }}$
180 km

$70 \mathrm{~km} / \mathrm{h} \longrightarrow$ $\qquad$

How many hours will it take for the faster car to catch up with the slower car? How far from the city A will they meet?
3. Two bicyclists start 100 miles apart, and head towards each other, each one going 10 $\mathrm{m} / \mathrm{h}$. At the same instant, a fly leaves the first bike and flies at 20 mph to the second.
 When it gets there, it immediately turns around and heads back to the first. Then it repeats, going back and forth between the two bikers. By the time they reach each other, how far will the fly have travelled?

4. 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?
5. Come up with the word problems corresponding to the pictures below and solve them:
a.

b.

$\mathrm{t}($ meet $)=$ ? h .
$\mathrm{d}(2)=? \mathrm{~km}$.
$\mathrm{d}(1)=? \mathrm{~km}$.
C.

d.


