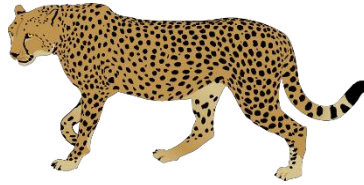Math 4d, Homework 14.
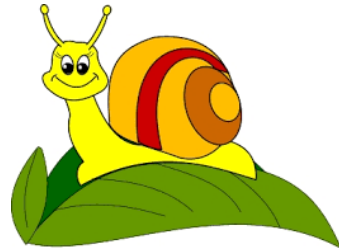
1. Represent the following values of speed in $\frac{km}{h}$ units and connect to the appropriate pictures.

$$1\frac{4}{5}\frac{km}{min} =$$

$$92\frac{m}{min} =$$

$$5\frac{m}{h} =$$

2. Peter's speed is $5\frac{1}{5}\frac{km}{h}$ (kph). How far will he go in
   a. 2 hours
   b. $1\frac{1}{5}$ hour
   c. 45 minuts
   d. 125 minuts
   (Represent the result in kilometers and meters, for example: 1km 250 m.)

3. $1\frac{1}{2}$ km Julia walked in 20 minutes. What was her speed?
   Represent your answer in
   a. $\frac{km}{h}$
   b. $\frac{km}{min}$
   c. $\frac{m}{h}$
   d. $\frac{m}{min}$

4. A river flows at 3 km/h. It takes same amount of time for a boat to travel 16 miles downstream as to travel 10 miles upstream. What is the speed of the boat in still water?

5. Write the following as mathematical expression. If this expression is an equation, solve it.

Example: The product of numbers m and 3: $3m$

a. The sum of the numbers x and 15 is equal to 20.
b. The product of numbers y and 10.
c. The difference between three times z and 4 is equal to12.
d. Half of the number b is equal to 5.
e. The product of the numbers 5 and x is less than 12.

6. 10 identical notebooks cost x dollars. One textbook costs 15 dollars more than one notebook. Write expressions to answer the questions:
a. What is the price of one notebook?
b. What is the price of the textbook?
c. What is the price of n notebooks?
d. What is the price of n notebooks and m textbooks?

7. Solve equations:

a. $\left| y - 2\frac{1}{2} \right| = 10;$ b. $|2x + 3| = 13;$ c. $3x - 1 = 2x + 8$

d. $7a = 5(3a - 4)$ e. $6z - 15 = z$