Math 4d, Homework 9.

1. There are three short stories in a book. Paulina read the first story in $\frac{1}{3}$ of one hour. She spent $\frac{1}{6}$ of an hour more reading the second story than reading the first one. The third story she read in $\frac{7}{12}$ of an hour less than the two previous stories together. How much time did it take her to read this book?

2. An apple worm was eating an apple. On the first day it ate half of the apple, on the second day it ate half of the rest, and on the third day it ate half of the rest again. On the fours day it ate all the leftovers. What part of the apple did it eat on the fourth day?

3. 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?

4. Fill the empty spaces in the table:

c	b	$b + c$
$\frac{1}{2}$	$\frac{2}{3}$	
$\frac{1}{2}$		$\frac{7}{8}$
	$\frac{1}{6}$	$\frac{1}{3}$

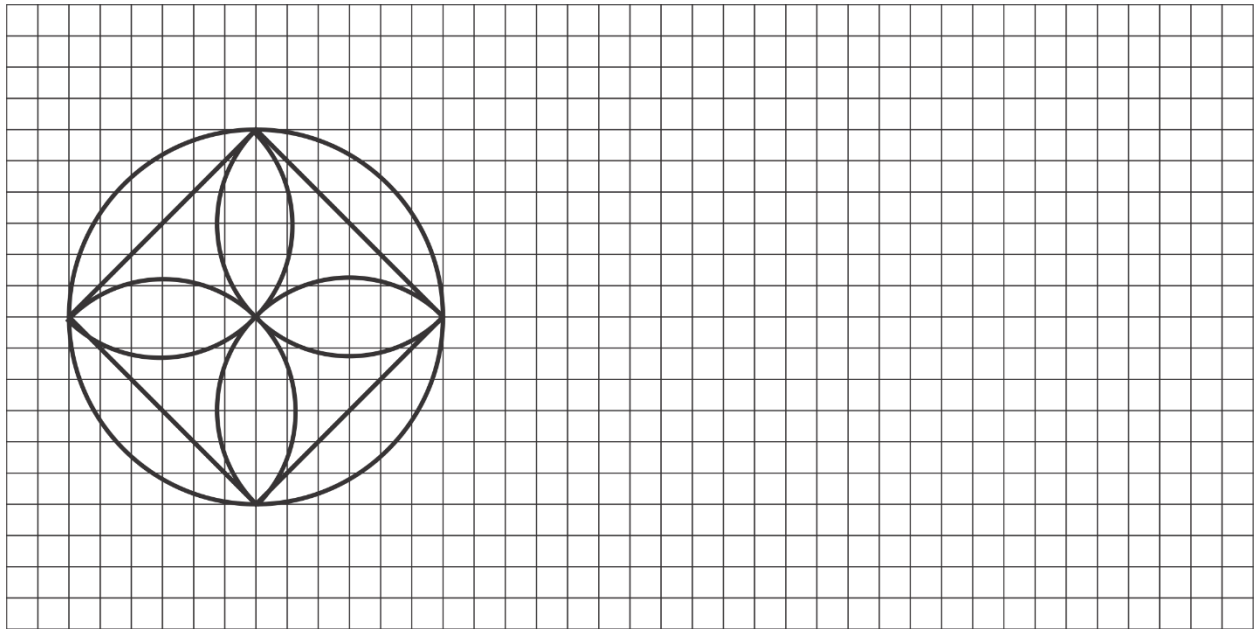| c	b	$b + c$
$\frac{11}{14}$	$\frac{3}{7}$	
$\frac{2}{3}$		$\frac{4}{9}$
	$\frac{1}{5}$	$\frac{1}{2}$

5. There is a $\frac{1}{4}$ of the kilogram of candies in a box. In another box there is by $\frac{1}{5}$ kg of candies more than in the first box. What is the total weight of candies in to boxes? Represent your answer in grams, remember, that 1 kg = 1000 g.
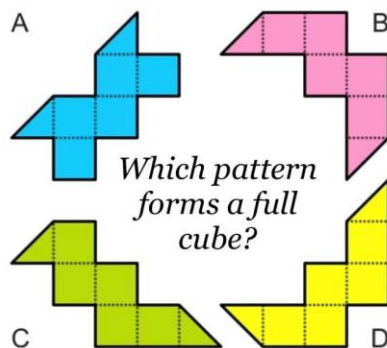
6. Evaluate:

   a. $\frac{11}{30} + \frac{7}{12}$;   b. $\frac{1}{27} + \frac{5}{18}$;   c. $\frac{5}{21} - \frac{5}{28}$;   d. $\frac{11}{18} - \frac{7}{12}$;

   e. $\frac{1}{8} - \frac{1}{10} + \frac{1}{4}$;   f. $\frac{3}{20} + \frac{1}{5} - \frac{1}{6}$;   g. $\frac{3}{4} - \frac{4}{25} - \frac{7}{20}$;   h. $\frac{3}{7} - \frac{1}{6} + \frac{5}{14}$

7. Copy the figure (use compass and ruler):

8.

Which pattern forms a full cube?

9. A notebook and a pen cost together $10 dollars. 5 pens and 6 notebooks cost $56. How much do the book and the pen cost separately?

10. Nine 1-digit numbers (1, 2, 3, 4, 5, 6, 7, 8, 9) should be placed into the boxes so that all equalities hold.

$$\Box - \Box = \Box\Box : \Box = \boxed{3} + \Box = \boxed{1} \cdot \Box$$