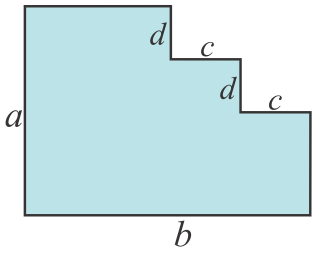
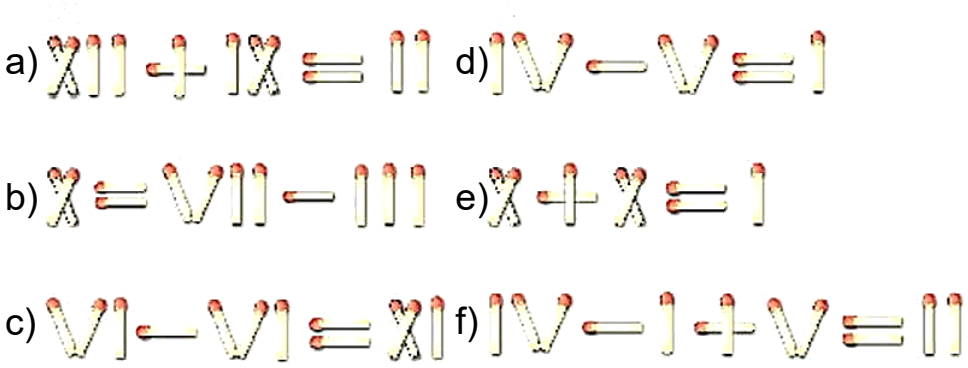
Math 4. Homework 21

1. A pipe can drain a swimming pool in 6 hours. The pool is ⅘ full of water. How many hours and minutes will it take to drain it?

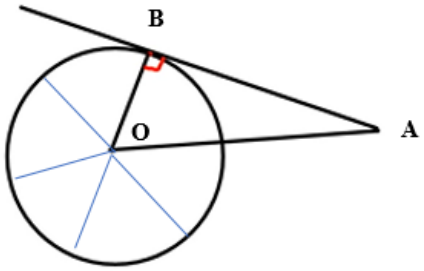
2. Find the expression that will give you:
   a) the perimeter of the figure below
   b) the area of the figure below



3. There are 6 false equalities below. Replacing only one stick in each of them makes the equality true. Find the stick and show where to move it:



4. Find the measurement of the angle OAB (it is the angle with the vertex "A")



5. Compute the value of the expressions $9a^2$, $(9a)^2$, $-9a^2$, $(-9a)^2$ if :

a) $a = \frac{1}{6}$

b) $a = -0.1$

c) $a = -\frac{2}{3}$

d) $a = 0.4$

6. Rewrite the following expression without parenthesis:

$\left(\frac{1}{2} + a\right)(2 + a) =$

$(n - a)(n + a) =$

$(a + b)(a + b) = (a + b)^2 =$

$(2a + 2b)(b - c) =$

7. * In a restaurant's dessert menu chocolate mousse cake is 25% more expensive than their cheese cake. By how many percent is the cheese cake less expensive than the chocolate mousse cake?

8. Julia has to write a 32-pages paper in 3 days. On the first day she wrote $\frac{3}{8}$ of the paper, one the second day she wrote $\frac{1}{4}$ of the paper. How many pages does she need to write on the third day?

9. I have 15 new books to choose from.
   A) I have a 5-day vacation and I want to read 1 book every day. How many possible ways are there for me to read these 5 books?
   B) I have a 3-day long vacation and I want to read 1 book every day. How many possible ways are there for me to read these 3 books?

10. Compute:

    a. $\left(-\frac{1}{2}\right)^5$
    b. $\left(-\frac{2}{3}\right)^4$
    c. $\left(-\frac{4}{5}\right)^3$

11. Compute:

    a. $-3+\left(-1\frac{1}{5}\right)=$

    b. $-3\frac{8}{19}+\left(-1\frac{11}{19}\right)=$

    c. $-7\frac{1}{3}+\left(-1\frac{2}{3}\right)=$