school nova™

1. Write an expression to solve the problems;
   a. There are a pencils in 4 identical boxes. How many pencils in 15 such boxes?
   b. One box contains a pencils, and the other has 4 times fewer pencils than the first. How many more pencils are in the first box than in the second?

2. 10 identical notebooks cost x dollars. Textbook costs 15 dollars more than a notebook.

   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?

3. The sum of three consecutive odd numbers is 135. What is the smallest of the three numbers?

4. Solve the following equations:

 $a.$ $2x + 3 = 11;$
   $b.$ $\dfrac{1}{2}x - 5 = 12;$
   $c.$ $14 + x = 4 + 6x$

5. Evaluate:

$$\frac{5.6 \cdot 3\frac{1}{3} \cdot 0.63}{4.9 \cdot 0.018 \cdot 5\frac{1}{3}}$$

6. A few kids went to the forest to pick mushrooms. If Anya gives half of her mushrooms to Vita, all the children will have equal number of mushrooms, if instead Anya gives all her mushrooms to Sasha, then Sasha will have as many mushrooms as all the other kids combined. How many kids went to the forest for mushrooms?

7. On Halloween night, Peter ate half of the chocolates he had collected. The next day, he ate half of the remaining candies and gave the rest to his younger brother. He gave his brother 5 chocolates. How many candies did Peter collect?

8. A cub is cut into 27 identical smaller cubes by making two cuts parallel to each of the three pairs of cube's faces (similar to Rubik's cube).
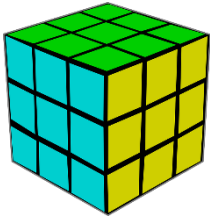
How many small cubes will have three faces painted?
How many small cubes will have two faces panted?
How many small cubes will have one face painted?
How many small cubes will not have painted faces at all?