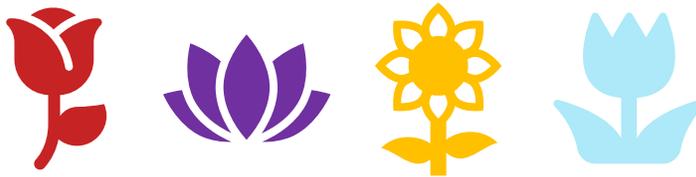


**Problem 1**

You want to buy potted flower as a gift for a friend. Florist has 4 types of flowers: Rose, Tulip, Sunflower, and Lily. They are sold in 3 different pots: brown, green, and yellow. How many different potted flowers (for example, Rose in a green pot) you can buy?



**Solution:** You can pick any flower and any pot. You could have a brown pot, a green pot and yellow pot. For each of these pots you could have any flower: Rose, Tulip, Sunflower and Lily. For each pot there are 4 possible flowers. So, there are 3 pots and each of them could have 4 possible flowers. In total it will be  $3 \cdot 4 = 12$  possible potted flowers. You see those possibilities on the picture below. And if we count them, indeed there are 12 different flower - pot pairs.



Rose Lily Sunflower Lily



Rose Lily Sunflower Lily



Rose Lily Sunflower Lily

## Problem 2

There are 20 students in the 4<sup>th</sup> grade. They have to choose a president, and a vice president of the class. How many different ways are there to do it?

**Solution** There are 20 kinds to choose the president from, then there are only 19 possible ways to choose a vice president. So, the total number of the possible ways are  $20 \cdot 19$ .

## Homework

1. A musketeer has 2 beautiful hats (blue and brown) and four elegant tabards (blue, brown, black, and green). How many different costumes can he wear? Write down all possible costumes.  
(tabard - a sleeveless jerkin consisting only of front and back pieces with a hole for the head.)
2. In the restaurant, there are 3 choices of starters, 4 choices of entrees and 5 choices of tasty desserts in the fix price dinner menu. How many different ways are there to fix a dinner for the restaurant's clients?
3. John took two pairs of boots, two pairs of shorts and six T-shirts with him to the summer vacation. In how many ways can John dress up in the camp? (The clothing set consists of a pair of shorts, a T-shirt, and a pair of matching boots.)



4. Mary and Paula have to mail all envelopes for a new marketing campaign. Mary can do the job alone in 5 hours. Paula can get the job done in 10 hours. How long would it take them to do the job if they work together?
5. Solve equations and decipher the name of the longest river in Africa.

**E**  $\frac{b}{4} = 80 - 45$

**N**  $200 - x = 36 + 18$

**L**  $a - 8 \cdot 6 = 67$

**I**  $70 \cdot 3 = y + 54$

146	156	115	140

6. Decipher the territory of which country this river flows by arranging the answers in ascending order.

<b>G</b>	$\frac{12}{17} - \frac{9}{17} =$
<b>E</b>	$9 \frac{2}{17} - 9 =$
<b>T</b>	$1 \frac{4}{5} + 2 =$

P	$4\frac{6}{11} - 2\frac{3}{11} =$
Y	$\frac{3}{7} + 1\frac{4}{7} =$
