

Exercises.

1. Factor out the common factor, find the value of the expressions:

Example:

$$2 \cdot 3 + 3 \cdot 7 = 3 \cdot (2 + 7) = 3 \cdot 9 = 27$$

a. $7 \cdot 5 + 2 \cdot 5;$ b. $4 \cdot 11 + 4 \cdot 3;$ c. $5 \cdot 6 - 5 \cdot 3;$

2. Rewrite the following expression without parenthesis, find the value of the expressions doing calculations with and without parenthesis.

Example:

$$5 \cdot (4 + 3) = 5 \cdot 4 + 5 \cdot 3 = 20 + 15 = 35$$

$$5 \cdot (4 + 3) = 5 \cdot 7 = 35$$

a. $7 \cdot (10 + 5);$ b. $3 \cdot (25 - 5);$ c. $(2 + 7) \cdot 5;$

3. Andrew is preparing for the Ironman competition. To do this, he swims for 37 minutes every day for 256 days, and also runs for 63 minutes every day for 256 days. How many minutes does he spend doing sports?

4. Evaluate (what is the best way to compute it)?

a. $(972 + 379) - 972;$

g. $(538 + 245) - 245;$

b. $(382 + 417) - 416;$

h. $(725 + 158) - 625;$

c. $851 - (831 + 7);$

i. $276 - (18 + 176);$

d. $134 - 98 - 2;$

j. $580 - 79 - 21;$

e. $83 \cdot 9 - 73 \cdot 9;$

k. $7 \cdot 38 - 7 \cdot 28;$

f. $24 \cdot 96 - 24 \cdot 86;$

l. $716 \cdot 52 - 616 \cdot 52;$

5. Which numbers are represented by the figures in following problems

1) $\bigcirc + 12 = \triangle$

$$\square : \triangle = 7$$

$$\triangle - 5 = \text{hexagon}$$

$$4 \cdot \text{hexagon} = 100$$

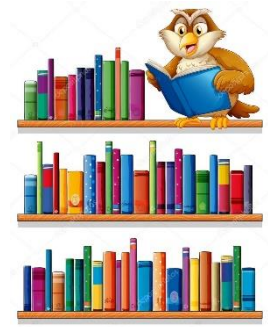
2) $\square : 9 = \square$

$$\triangle + \square = 84$$

$$3 \cdot \square = 162$$

$$90 - \bigcirc = \triangle$$

6. On the first shelf there are 5 more books than on the second shelf and 5 less than on the third shelf. There are 105 books altogether. How many books are there on each shelf?



7. The table in the picture should be filled in with the digits 1, 2, 3, 4, and 5 in a way that no digit can be put more than once in any row, column or diagonal. What digit should be in the middle cell?

3	4			5
2				
		?		
				4