

Test clasa a IX-a

1. Se dau numerele:

$$x = \left[\left(\sqrt{5} \right)^2 + \left| 2\sqrt{3} - 5 \right| + \left(\sqrt{3} + 1 \right)^2 \right] \cdot \frac{1}{7}$$

$$y = \left[5, (6) - \frac{15}{4} + 0,75 \right] \cdot \frac{3}{2}$$

a) determinati numerele (1,5p)

b) aflati media aritmetica si media geometrica a numerelor x si y (0,5p)

2. Rezolvati ecuatiile:

a) $5x - 2 = 3$ (0,5p)

b) $|2 - 3x| = 6$ (1p)

c) $[x - 3] = 4$ (1p)

d) $|3 - x| + |x^2 - 9| + \left| 1 - \frac{x}{3} \right| = 0$ (1p)

3. Aduceti la o forma mai simpla expresiile:

a) $\overrightarrow{AB} + \overrightarrow{BC} + 2\overrightarrow{CD} + 2\overrightarrow{DA} + \overrightarrow{AC}$

b) $\overrightarrow{AC} + \overrightarrow{BC} + 2\overrightarrow{CD} + 2\overrightarrow{DA} + \overrightarrow{DC} + 2\overrightarrow{DB}$ (1,5p)

4. Aflati vectorul \vec{x} care verifica egalitatea:

$$2 \cdot (\overrightarrow{AB} + 2\overrightarrow{BC} + \overrightarrow{CA} + \vec{x}) = \overrightarrow{AB} + 3\overrightarrow{BC} + 4\overrightarrow{CA} \quad (1p)$$