

Tema 2.9

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$$1. a) m_a = \frac{12+36}{2} = \frac{48}{2} = 24$$

$$b) m_a = \frac{20+34+42}{3} = \frac{96}{3} = 32$$

$$c) m_a = \frac{2,4+6,6}{2} = \frac{9}{2} = 4,5$$

$$d) m_a = \frac{8,11+7,29}{2} = \frac{15,4}{2} = 7,7$$

$$e) m_a = \frac{0,03+4,85}{2} = \frac{4,88}{2} = 2,44$$

$$f) m_a = \frac{2,1+3,6+5,7}{3} = \frac{11,4}{3} = 3,8$$

$$2. m_a = 21,35$$

$$a = 18,3$$

$$m_a = \frac{a+b}{2}$$

$$b = ?$$

$$m_a = \frac{18,3+b}{2}$$

$$21,35 = \frac{18,3+b}{2} \Rightarrow 18,3+b = 21,35 \cdot 2$$

$$18,3+b = 42,70$$

$$b = 42,70 - 18,3$$

$$b = 24,40$$

$$3. m_a = 7,14$$

$$a+b+c=?$$

$$m_a = \frac{a+b+c}{3} \Rightarrow 7,14 = \frac{a+b+c}{3} \Rightarrow a+b+c = 7,14 \cdot 3$$

$$a+b+c = 21,42$$

$$4. m_a = \frac{8+9+7}{3}$$

$$m_a = \frac{24}{3} \Rightarrow m_a = 8$$

$$5. a) m_a = \frac{12+18}{2} = \frac{30}{2} = 15$$

$$b) m_a = \frac{204+305}{2} = \frac{509}{2} = 254,5$$

$$c) m_a = \frac{7+8,4}{2} = \frac{15,4}{2} = 7,7$$

$$d) m_a = \frac{9+14,32}{2} = \frac{23,32}{2} = 11,66$$

$$e) m_a = \frac{10,5+47,34}{2} = \frac{57,84}{2} = 28,92$$

$$f) m_a = \frac{10+12+30,2}{3} = \frac{52,2}{3} = 17,4$$

$$g) m_a = \frac{15,3+12,7+101,6}{3} = \frac{129,6}{3} = 43,2$$

$$h) m_a = \frac{44,9+58,83+30,07}{3} = \frac{133,8}{3} = 44,6$$

$$i) m_a = \frac{3,45+1,03+7+0,05}{4} = \frac{11,53}{4} = 2,8825$$

$$6. m_a = 14,75$$

$$a = 8,4$$

$$m_a = \frac{a+b}{2}$$

$$14,75 = \frac{8,4+b}{2} \Rightarrow 8,4+b = 14,75 \cdot 2$$

$$8,4+b = 29,50$$

$$b = 29,50 - 8,4$$

$$b = 21,10$$

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$$7. m_a = 47,58$$

$$a_1 + a_2 + \dots + a_{100} = ?$$

$$m_a = \frac{a_1 + a_2 + \dots + a_{100}}{100} \Rightarrow a_1 + a_2 + \dots + a_{100} = 100 \cdot 47,58$$

$$a_1 + a_2 + \dots + a_{100} = 4758$$

$$8. a = 0,3 + 2,5 \cdot 4 - (24 \cdot 0,5 + 1) : 2 - 0,9 \cdot 0,8$$

$$a = 0,3 + 10 - (12 + 1) : 2 - 0,72$$

$$a = 10,3 - 13 : 2 - 0,72$$

$$a = 10,3 - 6,5 - 0,72$$

$$a = 3,8 - 0,72$$

$$a = 3,08$$

$$b = 2,7 + 1,5^2 - 24,18 : 6$$

$$b = 2,7 + 2,25 - 4,03$$

$$b = 0,92$$

$$m_a = \frac{a+b}{2} = \frac{3,08 + 0,92}{2} = \frac{4}{2} = 2$$

$$9. \quad a = 3,2 + 2,7 \cdot 2,5 - 0,28 : 0,07$$

$$a = 3,2 + 13,6 - 28 : 7$$

$$a = 16,8 - 4$$

$$a = 12,8$$

$$b = 12,3 \cdot (5,79 - 4,29) + 0,3^2 : 3$$

$$b = 12,3 \cdot 1,5 + 0,09 : 3$$

$$b = 18,45 + 0,03$$

$$b = 18,48$$

$$c = 2 \cdot 9,5 - 14 : 4 + 0,31 \cdot 0,5 - 0,005 \cdot 3$$

$$c = 19 - 3,5 + 0,155 - 0,015$$

$$c = 15,5 + 0,155 - 0,015$$

$$c = 15,64$$

$$m_a = \frac{a+b+c}{3} = \frac{12,8 + 18,48 + 15,64}{3} = \frac{46,92}{3} = 15,64$$

$$10. \quad \frac{a_1 + a_2 + a_3 + a_4}{4} = 23,25 \Rightarrow a_1 + a_2 + a_3 + a_4 = 4 \cdot 23,25 \Rightarrow$$

$$\Rightarrow a_1 + a_2 + a_3 + a_4 = 93$$

$$\frac{b_1 + b_2 + b_3 + b_4 + b_5}{5} = 14,2 \Rightarrow b_1 + b_2 + b_3 + b_4 + b_5 = 5 \cdot 14,2 \Rightarrow$$

$$\Rightarrow b_1 + b_2 + b_3 + b_4 + b_5 = 71$$

$$\frac{a_1 + a_2 + a_3 + a_4 + b_1 + b_2 + b_3 + b_4 + b_5}{9} = \frac{93 + 71}{9} = \frac{164}{9} = 18,2$$

$$11. \frac{b_1 + b_2 + b_3 + b_4 + b_5}{5} = 5 \Rightarrow b_1 + b_2 + b_3 + b_4 + b_5 = 25$$

$$b_2 = b_1 + 1$$

$$b_3 = b_2 + 1 = b_1 + 2$$

$$b_4 = b_3 + 1 = b_1 + 3$$

$$b_5 = b_4 + 1 = b_1 + 4$$

$$b_1 + (b_1 + 1) + (b_1 + 2) + (b_1 + 3) + (b_1 + 4) = 25$$

$$5b_1 + 10 = 25$$

$$5b_1 = 25 - 10$$

$$5b_1 = 15 \Rightarrow b_1 = 15 : 5 \Rightarrow b_1 = 3$$

$$b_2 = 3 + 1 = 4$$

$$b_3 = 4 + 1 = 5$$

$$b_4 = 5 + 1 = 6$$

$$b_5 = 6 + 1 = 7$$

$$12. \quad x = ?$$

$$m_a = \frac{21 + 14,4 + 34,6 + x}{4}$$

$$m_a = 29$$

$$29 = \frac{21 + 14,4 + 34,6 + x}{4} \Leftrightarrow 35,4 + 34,6 + x = 29 \cdot 4 \Leftrightarrow$$

$$\Leftrightarrow 70 + x = 116 \Leftrightarrow x = 116 - 70 \Rightarrow x = 46$$

$$13. \quad \frac{14+29+18+x+y}{5} = 72$$

$$\frac{60+2x}{2} = 47 \quad (\Rightarrow) \quad 60+2x = 47 \cdot 2 \quad (\Rightarrow) \quad 60+2x = 94 \quad | :2 (\Rightarrow)$$

$$(\Rightarrow) \quad 30+x = 47 \Rightarrow x = 47-30 \Rightarrow x = 17$$

$$\frac{14+29+18+17+y}{5} = 72 \quad (\Rightarrow) \quad 78+y = 72 \cdot 5 \quad (\Rightarrow)$$

$$(\Rightarrow) \quad y = 360 - 78 \Rightarrow y = 282$$

$$14. \quad \frac{2 \times 4,3 + 3 \times 5,6}{5} = \frac{8,6 + 16,8}{5} = \frac{25,4}{5} = 5,08$$

1 Kg din bomboanile amestecate trebuie să se vândă cu prețul de 5,08 lei

15. a, b, c = sunt notele lui Mircea

$$\frac{a+b+c}{3} = 6 \Rightarrow a+b+c = 3 \cdot 6$$

$$a+b+c = 18$$

$$\frac{a+b+c+10}{4} = \frac{18+10}{4} = \frac{28}{4} = 7$$