

BAREM DE CORECTARE ȘI NOTARE

Subiectul I

$$\left. \begin{array}{l} 15a + 33b + 407c = 2013 \\ 3 \mid 15b \\ 3 \mid 33b \\ 3 \mid 2013 \end{array} \right\} \Rightarrow 3 \mid 407c \Rightarrow 3 \mid c; c - \text{prim} \Rightarrow c = 3. \quad (1p)$$

$$15a + 33b + 407 \cdot 3 = 2013 \dots\dots\dots (1p)$$

$$5a + 11b = 264 \dots\dots\dots (1p)$$

$$a = 11 \dots\dots\dots (1p)$$

$$5 \cdot 11 + 11b = 264 \dots\dots\dots (1p)$$

$$11b = 209 \dots\dots\dots (1p)$$

$$b = 19 \dots\dots\dots (1p)$$

Subiectul II

$$a + b = \left(\frac{1}{2} + \frac{1}{2}\right) + \left(\frac{2}{3} + \frac{1}{3}\right) + \left(\frac{3}{4} + \frac{1}{4}\right) + \dots + \left(\frac{2013}{2014} + \frac{1}{2014}\right) \quad (4p)$$

$$a + b = \underbrace{1 + 1 + 1 + \dots + 1}_{2013 \text{ termeni}} = 2013 \quad (2p)$$

$$2 + 0 + 1 + 3 = 6 \div 3 \Rightarrow 2013 \div 3 \Rightarrow (a + b) \div 3 \quad (1p)$$

Subiectul III

Realizarea desenului și notarea corectă (2p)

$$m(\widehat{AOC}) + m(\widehat{BOD}) = \left[m(\widehat{AOD}) + 2 \cdot m(\widehat{DON}) \right] + \left[m(\widehat{AOD}) + 2 \cdot m(\widehat{MOA}) \right] \quad (2p)$$

$$= 2 \cdot m(\widehat{AOD}) + 2 \cdot m(\widehat{DON}) + 2 \cdot m(\widehat{MOA}) \quad (1p)$$

$$= 2 \cdot \left[m(\widehat{AOD}) + m(\widehat{DON}) + m(\widehat{MOA}) \right] \quad (1p)$$

$$= 2 \cdot m(\widehat{MON}) = 2 \cdot 90^\circ = 180^\circ. \quad (1p)$$

Subiectul IV

Realizarea desenului și notarea corectă (1p)

$$[AF] \equiv [DE] \quad (3p)$$

$$[EM] \equiv [MF] \quad (3p)$$