

$$1) AE = \underline{12,31 \text{ cm}}$$

$$O_1E^2 = AE^2 + O_1A^2 \Rightarrow O_1E^2 = 12,31^2 + 4^2$$

$$\Leftrightarrow O_1E^2 = 167,5361$$

$$\Leftrightarrow O_1E = \underline{12,94 \text{ cm}}$$

~~2) Dapur Thales~~ $\frac{O_2E}{O_1E} = \frac{EB}{EA}$

$$2) O_2E = EO_1 - O_1O_2 = 12,94 - 8 = \underline{4,94 \text{ cm}}$$

Dapur Thales

$$\frac{EB}{EA} = \frac{EO_2}{EO_1}$$

$$\Leftrightarrow EB = \frac{EO_2}{EO_1} \times EA = \frac{4,94}{12,94} \times 12,32$$

$$\Leftrightarrow EB = \underline{4,70 \text{ cm}}$$

$$3) AB = AE - BE = 12,31 - 4,70 = \underline{7,61 \text{ cm}}$$

$$DC = AB = \underline{7,61 \text{ cm}}$$

$$4) \text{Arc}(\widehat{A\hat{O}D}) = 2\pi \times 4 \times \frac{360 - 2 \times 72}{360} = 0,6 \times 8 \times \pi = 4,8\pi \approx \underline{15,08 \text{ cm}}$$

$$\text{Arc}(\widehat{B\hat{O}C}) = 2\pi \times \cancel{4} (O_2B) \times \frac{\cancel{360} + 2 \times 72}{360} = \cancel{2\pi \times 4} (O_2B) \times 0,8\pi (O_2B)$$

$$\frac{O_2B}{O_1A} = \frac{O_2E}{O_1E} \Leftrightarrow O_2B = \frac{4,94}{12,94} \times 4 = 1,527$$

$$\text{De } \text{Arc}(\widehat{B\hat{O}C}) = \cancel{2\pi \times 4} \times \underline{1,527} \times 0,8\pi \approx 3,84 \text{ cm}$$

$$5) \text{Longueur Courbe} = EB + BA + \widehat{A\hat{O}D} + DC \\ = 3,84 + 7,61 + 15,08 + 7,61 \\ = \underline{34,14 \text{ cm}}$$

$$v_{\text{rotat}} = 200 \text{ t/min}$$

$$a) \quad v = \frac{200 \times 2\pi R}{60} \quad \frac{\text{m}}{\text{s}}$$

$$= \frac{400\pi R}{60}$$

$$= \frac{40\pi R}{6}$$

$$= \frac{20\pi R}{3}$$

$$= \frac{20 \times \pi \times 0,2}{3} = \underline{\underline{4,19 \text{ m/s}}}$$

$$= 4,19 \times 60 \quad \frac{\text{m}}{\text{min}}$$

$$= 251,32 \quad \frac{\text{m}}{\text{min}}$$

$$= \frac{251,32}{0}$$

$$1 \text{ tour} = 2\pi \times 0,2 \text{ m} = 5,026 \text{ m}$$

$$\text{Dne } v_{\text{rotat}} = \frac{251,32}{5,026} = \underline{\underline{50 \text{ t/min}}}$$