GRANDEURS ET MESURES - NIVEAU 2

Corrections



$$\mathcal{A}_{ABC} = AC \times HB \div 2 = 5 \text{ cm} \times 3 \text{ cm} \div 2 = 7,5 \text{ cm}^2$$

$$\mathcal{A}_{DEF} = DE \times IF \div 2 = 9 \text{ cm} \times 6 \text{ cm} \div 2 = 27 \text{ cm}^2$$

$$\mathcal{A}_{MNO} = MN \times JO \div 2 = 6 \text{ cm} \times 5 \text{ cm} \div 2 = 15 \text{ cm}^2$$

ou
$$\mathcal{A}_{MNO} = ON \times KM \div 2 = 6,7 \text{ cm} \times 4,5 \text{ cm} \div 2 \approx 15 \text{ cm}^2$$



- **1.** 3
- **2.** 3, 1
- **3.** 35
- **4.** 34,**6**

- **5.** 19
- **6.** 18,8
- **7.** 66
- **8.** 66



1. $\mathcal{P}_1 = 2 \times 8 \times \pi$ cm = 16π cm $\approx 50,3$ cm

$$\mathcal{A}_1 = 8 \times 8 \times \pi \text{ cm}^2 = 64\pi \text{ cm}^2 \approx 201, 1 \text{ cm}^2$$

2. $\mathscr{P}_2 = 10\pi \text{ cm} \approx 31,4 \text{ cm}$

$$\mathcal{A}_2 = 5 \times 5 \times \pi \text{ cm}^2 = 25\pi \text{ cm}^2 \approx 78,5 \text{ cm}^2$$

3. $\mathscr{P}_3 = 6\pi \text{ cm} \approx 18.8 \text{ cm}$

$$\mathcal{A}_3 = 3 \times 3 \times \pi \text{ cm}^2 = 9\pi \text{ cm}^2 \approx 28,3 \text{ cm}^2$$

4. $\mathscr{P}_4 = 2 \times 11 \times \pi \ \text{cm} = 22\pi \ \text{cm} \approx 69,1 \ \text{cm}$

$$\mathcal{A}_4 = 11 \times 11 \times \pi \text{ cm}^2 = 121\pi \text{ cm}^2 \approx 380, 1 \text{ cm}^2$$





Mise en route M2

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Cercle de rayon 3 cm:

$$\mathcal{P}_1 = 2 \times 3 \times \pi \text{ cm} \approx 18.8 \text{ cm}$$

$$\mathcal{A}_1 = 3 \times 3 \times \pi \text{ cm}^2 \approx 28,3 \text{ cm}^2$$

Demi-cercle de 4 cm de rayon :

$$\mathcal{P}_2 = \frac{1}{2} \times 2 \times 4 \times \pi + 8 \text{ cm} \approx 20,6 \text{ cm}$$

$$\mathcal{A}_2 = \frac{1}{2} \times 4 \times 4 \times \pi \text{ cm}^2 \approx 25,1 \text{ cm}^2$$

Quart de cercle de 2 cm de rayon :

$$\mathcal{P}_3 = \frac{1}{4} \times 2 \times 2 \times \pi + 2 + 2 \text{ cm} \approx 7,1\text{cm}$$

$$\mathcal{A}_3 = \frac{1}{4} \times 2 \times 2 \times \pi \text{ cm}^2 \approx 3,1 \text{ cm}^2$$



1. Le diamètre du grand cercle est de 6cm (2 cm + 2 cm + 2 cm) donc sa circonférence est : $6 \times \pi$ cm $\approx 18,8$ cm

2.
$$\mathcal{A}_{\text{grand cercle}} = 3 \times 3 \times \pi \text{ cm}^2 = 9\pi \text{ cm}^2$$

$$\mathcal{A}_{petit\ cercle} = 1 \times 1 \times \pi\ cm^2 = \pi\ cm^2$$

$$\mathcal{A}_{partie\ colorée} = \mathcal{A}_{grand\ cercle} - \mathcal{A}_{petit\ cercle} = 9\pi - \pi\ cm^2 = 8\pi\ cm^2 \approx 25,1\ cm^2$$



$$\mathcal{P}_{ABCDEF} = AB + BC + CD + DE + EF \approx 3 \text{ cm} + 4.9 \text{ cm} + 3.2 \text{ cm} + 1.3 \text{ cm} + 2.4 \text{ cm} + 5 \text{ cm} = 19.8 \text{ cm}$$

$$\mathcal{A}_{ABCDEF} = \mathcal{A}_{ABDF} + \mathcal{A}_{BCD} + \mathcal{A}_{DEF} = (3 \text{ cm} \times 5 \text{ cm}) + (5 \text{ cm} \times 3 \text{ cm} \div 2) + (3 \text{ cm} \times 1 \text{ cm} \div 2)$$

$$\mathcal{A}_{ABCDEF} = 15 \text{ cm}^2 + 7.5 \text{ cm}^2 + 1.5 \text{ cm}^2 = 24 \text{ cm}^2$$

$$\mathcal{P}_{RSTUV} = RS + ST + TU + UV + VR \approx 6 \text{ cm} + 4,3 \text{ cm} + 3,2 \text{ cm} + 6 \text{ cm} + 4 \text{ cm} = 23,5 \text{ cm}$$

$$\mathcal{A}_{RSTUV} = \mathcal{A}_{VRSU} - \mathcal{A}_{STU} = (6 \text{ cm} \times 4 \text{ cm}) - (4 \text{ cm} \times 3 \text{ cm} \div 2)$$

$$A_{RSTUV} = 24 \text{ cm}^2 - 6 \text{ cm}^2 = 18 \text{ cm}^2$$



