

WISKUNDE – WEEK 3:

Maandag:

- 7.1 Bepaal die waarde van x .

$$x^2 + 6^2 = 10^2 \text{ (pyth)}$$

$$x^2 = 64$$

$$x = 8 \text{ cm}$$

- 7.2. Bepaal die waarde van y .

$$AD^2 + DC^2 = y^2 \text{ (pyth)}$$

$$6^2 + 16^2 = y^2$$

$$y = 17,10 \text{ cm}$$

- 7.3. Bepaal die omtrek van die figuur.

$$\text{omtrek: } sy + sy + sy$$

$$\therefore 6 + 16 + 17,10$$

$$= 39,10 \text{ cm}$$

- 7.4. Bepaal die oppervlakte van die figuur.

$$\text{opp: } \frac{1}{2} (b \times \perp h)$$

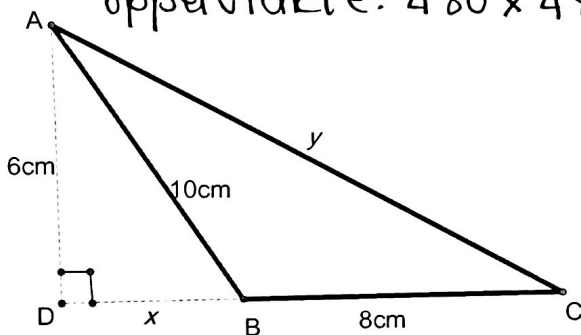
$$= \frac{1}{2} (16 \times 6)$$

$$= 48 \text{ cm}^2$$

- 7.5. Skakel die omtrek en oppervlakte om na mm en mm^2 .

$$\text{omtrek: } 39,10 \times 10 = 391 \text{ mm}$$

$$\text{oppervlakte: } 480 \times 480 = 230400 \text{ mm}^2$$



- 8.1. Identifiseer die figuur langsaan.

trapesium

- 8.2. Bepaal die omtrek van die figuur.

$$\text{om: } 5 + 5 + 5 + 5$$

$$= 15 + 5 + 24 + 8,3$$

$$= 52,3 \text{ cm}$$

- 8.3. Bepaal die Oppervlakte van die figuur.

$$\text{opp: } \textcircled{1} l \times b + \textcircled{2} \frac{1}{2} (b \times \perp h)$$

$$= 5 \times 15 + \frac{1}{2} (9 \times 5)$$

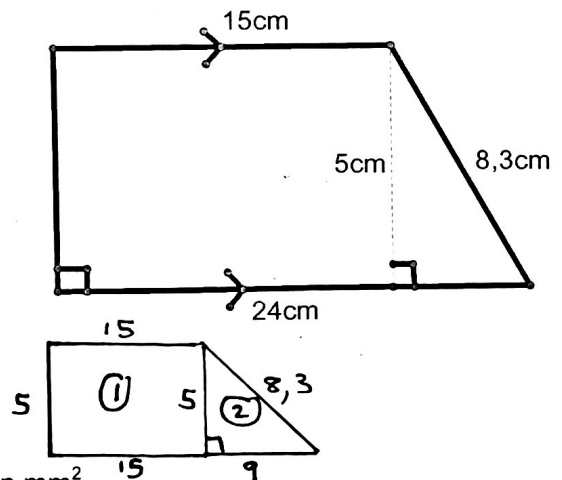
$$= 75 + 22,5 = 97,5 \text{ cm}^2$$

- 8.4. Skakel die omtrek en Oppervlakte om na mm en mm^2 .

$$\text{omtrek: } 52,3 \times 10 = 523 \text{ mm}$$

$$\text{oppervlakte: } 975 \times 975$$

$$= 950625 \text{ mm}^2$$



Maandag HUISWERK	Oefening 4	Bl. 159 201	# a, b, h	Handtekening:
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Woensdag:

- 9.1 Identifiseer die figuur hieronder.

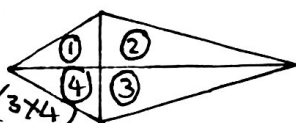
vlieër

- 9.2 Bepaal die omtrek van die figuur.

$$\begin{aligned}\text{om: } & 5 + 5 + 5 + 5 \\ & = 5 + 9,8 + 9,8 + 5 \\ & = 29,6 \text{ cm}\end{aligned}$$

- 9.3 Bepaal die Oppervlakte van die figuur.

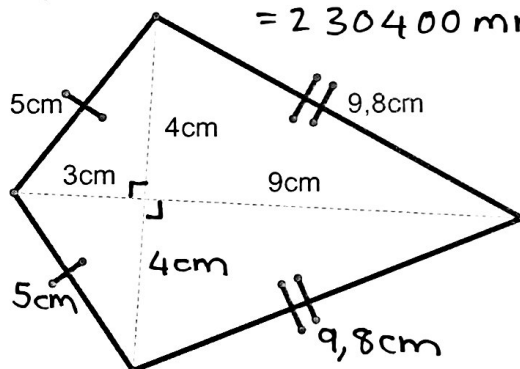
$$\begin{aligned}\text{opp: } & \textcircled{1} + \textcircled{2} + \textcircled{3} + \textcircled{4} \\ & = \frac{1}{2}(3 \times 4) + \frac{1}{2}(4 \times 9) + \frac{1}{2}(4 \times 9) + \frac{1}{2}(3 \times 4) \\ & = 6 + 18 + 18 + 6 = 48 \text{ cm}^2\end{aligned}$$



- 9.4 Skakel die omtrek en Oppervlakte om na mm en mm².

$$\text{omtrek: } 29,6 \times 10 = 296 \text{ mm}$$

$$\begin{aligned}\text{oppervlak: } & 480 \times 480 \\ & = 230400 \text{ mm}^2\end{aligned}$$



- 10.1 Bepaal die omtrek van die figuur langsaan.

$$\begin{aligned}\text{om: } & 2\pi r \\ & = 2 \times \pi \times 2,6 \\ & = \frac{26}{5} \pi / 16,34 \text{ cm}\end{aligned}$$

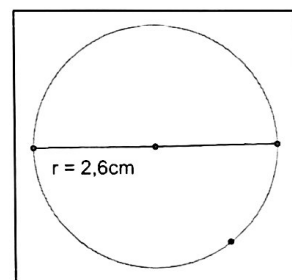
- 10.2 Bepaal die oppervlakte van die figuur.

$$\begin{aligned}\text{opp: } & \pi r^2 \\ & = \pi \times (2,6)^2 \\ & = \frac{169}{25} \pi / 21,24 \text{ cm}^2\end{aligned}$$

- 10.3 Skakel die omtrek en oppervlakte om na mm en mm².

$$\text{omtrek: } 16,34 \times 10 = 163,4 \text{ mm}$$

$$\text{oppervlak: } 212,4 \times 212,4 = 45113,76 \text{ mm}^2$$



Woensdag HUISWERK	Oefening 5	Bl. 163 204	# a, e, f	Handtekening:
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onthou:
radius = $\frac{1}{2}$ deurs.

Donderdag:

11. Bepaal die omtrek en die oppervlakte van 'n sirkel met 'n deursnee van 6,7 cm.

$$\text{omtrek} : d \pi$$

$$\therefore 6,7 \times \pi$$

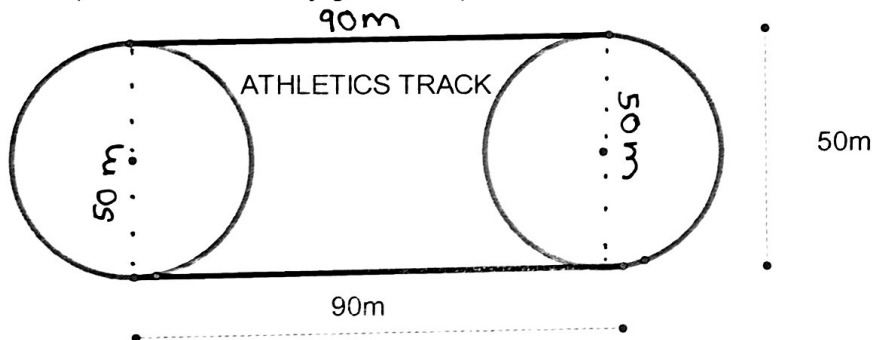
$$= 21,05 \text{ cm}$$

$$\text{oppervlak} : \pi r^2$$

$$\therefore \pi \left(\frac{1}{2} \times 6,7 \right)^2$$

$$= 35,26 \text{ cm}^2$$

12. Jannie neem deel in 'n atletiekbyeenkoms. Hy hardloop drie keer om die baan.
Bepaal die hoe ver hy gehardloop het.



$$\therefore 3 \times (\text{omtrek v. } \frac{1}{2} \text{ sirkel} + 90\text{m} + \text{omtrek v. } \frac{1}{2} \text{ sirkel} + 90\text{m})$$

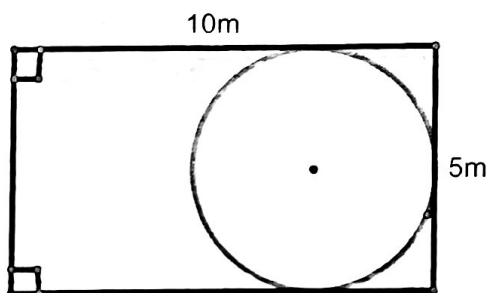
$$= 3 \times \left[\left(\frac{1}{2} \times 50 \times \pi \right) + 90 + \left(\frac{1}{2} \times 50 \times \pi \right) + 90 \right]$$

$$= 3 \times [25\pi + 90 + 25\pi + 90]$$

$$= 3 \times 337,08$$

$$= 1011,24 \text{ m}$$

13. Bepaal die oppervlakte van die skadu deel hieronder.



$$\text{oppervlak} : \square - \odot$$

$$\therefore (l \times b) - (\pi r^2)$$

$$= (10 \times 5) - \pi \left(\frac{1}{2} \times 5 \right)^2$$

$$= 50 - 19,63$$

$$= 30,37 \text{ m}^2$$

Gr. 9 Wiskunde Memorandum (Week 2)

(M) $\cdot 3 \text{ km} = 3000 \text{ m}$

$\cdot 30 \text{ m} = 30\,000 \text{ mm} = 3000 \text{ cm}$

$\cdot 3,5 \text{ cm} = 35 \text{ mm}$

$\cdot 4 \text{ km}^2 = 4\,000 \times 4\,000$
 $= 16\,000\,000 \text{ m}^2$

$\cdot 10 \text{ km}^2 = 10\,000 \times 10\,000$
 $= 100\,000\,000 \text{ m}^2$

$\cdot 5,34 \text{ km}^2 = 5340 \times 5340$
 $= 28\,515\,600 \text{ m}^2$

$\cdot 7 \text{ m}^2 = 700 \times 700$
 $= 490\,000 \text{ cm}^2$

$\cdot 98 \text{ m}^2 = 9800 \times 9800$
 $= 96040000 \text{ cm}^2$

$\cdot 4 \text{ cm}^2 = 40 \times 40$
 $= 1600 \text{ mm}^2$

(N) Bl. 147, oef 1

(a) $\text{om} : s + s + s$

$= 17 + 10 + 9$

$= 36 \text{ cm}$

opp : $\frac{1}{2} (b \times h)$

$= \frac{1}{2} (15 \times 17)$ $h \rightarrow \text{pyth}$

$= \frac{1}{2} (15 \times 8)$ $h^2 = 10^2 - 6^2$

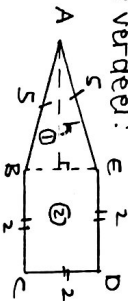
$= 60 \text{ cm}^2$ $h = 8$

(c) $\text{om} : s + s + s + s + s$

$= 5 + 2 + 2 + 2 + 5$

$= 16 \text{ cm}$

opp : verdeel!



$h^2 = 5^2 - 1^2 (\text{pyth})$

$h = \sqrt{25 - 1}$

$= 2,88 \text{ cm}$

$\therefore \text{opp} \textcircled{1} : \frac{1}{2} (b \times h) + \text{opp} \textcircled{2} : 2 \times 2$

$= \frac{1}{2} (2 \times 2,88) + (2 \times 2)$

$= 2,88 + 4$

$= 6,88 \text{ cm}^2$

(d) $\hat{R} = 60^\circ \therefore \hat{P} = 60^\circ \text{ en } \hat{Q} = 60^\circ$

$\therefore PR = 16 \text{ cm en } PQ = 16 \text{ cm}$

$h^2 = 16^2 - 8^2 (\text{pyth})$

$= \sqrt{192}$

$h = 13,856 \dots \text{ m}$

$\therefore \text{om} : s + s + s$

$= 16 + 16 + 16$

$= 48 \text{ m}$

opp : $\frac{1}{2} (b \times h)$

$= \frac{1}{2} (16 \times 13,86)$

$= 110,88 \text{ m}^2$

(D) Bl. 147, oef 1

(e) $d^2 = 80^2 + 60^2$

$= \sqrt{10\,000}$

$d = 100 \text{ cm}$

$\text{om} : d \pi$

$= 100 \pi / 314,16 \text{ cm}$

opp : πr^2

$= \pi (\frac{1}{2} \times 100)^2$

$= 2500 \pi / 7853,98 \text{ cm}^2$

Bl. 150, oef 2

(a) opp $\square - \text{opp} \textcircled{O}$

opp $\square : 2 \times b$

$= 42 \times 86$

$= 3612 \text{ cm}^2$

opp $\textcircled{O} : \pi r^2$

$= \pi (\frac{1}{2} \times 42)^2$

$= 441 \pi / 1385,44 \text{ cm}^2$

$\therefore \text{opp} = 3612 - 1385,44$

$= 2226,56 \text{ cm}^2$