

Gr. 9 Wiskunde Memorandum (Hersieningsoefening) ①

Maandag:

$$1.1) 1) \text{ Om: } s + s + s + s + s \\ = 10 + 5 + 10 + 5 \\ = 30 \text{ cm}$$

$$1.1) 2) \text{ opp: } l \times b \\ = 5 \times 10 \\ = 50 \text{ cm}^2$$

$$1.2) 1) \text{ opp} = l \times b \\ 56 = l \times 4 \\ 14 = l$$

Toets:  $14 \times 4 = 56 \text{ cm}^2$   
 $\therefore$  lengte = 140 mm

$$1.3) 1) \text{ omtrek} = 4 \times s_{ye} \\ 80 = 4s \\ \frac{80}{4} = s \\ \therefore 20 = s \\ s_y = 20 \text{ mm}$$

$$1.3) 2) \text{ opp} = l \times b (s_y \times s_y) \\ = 20 \times 20 \\ = 400 \text{ mm}^2$$

$$1.4) 1) \text{ opp} = s \times s \\ 625 = s^2 \\ \sqrt{625} = s \\ 25 = s \\ \therefore s_y = 25 \text{ cm}$$

$$1) 4) 2) \text{ Omtrek} = s + s + s + s + s + s \\ = 25 + 25 + 25 + 25 + 25 \\ = 100 \text{ cm}$$

Woensdag:

$$1.5) 1) \text{ opp} = s \times s (s^2) \\ 64x^2y^2 = s^2 \\ \sqrt{64x^2y^2} = s \\ 8xy = s$$

$$1.5) 2) \text{ Om} = s + s + s + s + s \\ = 8xy + 8xy + 8xy + 8xy + 8xy \\ = 32xy$$

$$2.1) 1) \text{ opp } \Delta = \frac{1}{2} (b \times h) \\ = \frac{1}{2} (10 \times 12) \\ = 60 \text{ cm}^2$$

$$2.1) 2) \text{ opp } \Delta = \frac{1}{2} (b \times h) \\ = \frac{1}{2} (5 \times 12) \\ = 30 \text{ cm}^2$$

$$2.1) 3) \text{ AC}^2 = \text{AB}^2 + \text{BC}^2 \text{ (Pyth)} \\ \text{AC}^2 = 12^2 + 5^2 \\ \text{AC} = \sqrt{169} \\ \text{AC} = \text{AB} = 13 \text{ cm}$$

$$2.1) 4) \text{ Omtrek } \Delta = s + s + s \\ = 10 + 13 + 13 \\ = 36 \text{ cm}$$

$$2.2) 1) \text{ SY}^2 = \text{RS}^2 - \text{RY}^2 \text{ (pyth)} \\ \text{SY}^2 = 25^2 - 15^2 \\ \text{SY} = \sqrt{400} \\ \text{SY} = 20$$

$$\text{YT}^2 = \text{RT}^2 - \text{RY}^2 \\ \text{YT}^2 = 17^2 - 15^2 \\ \text{YT} = \sqrt{64} \\ \text{YT} = 8$$

$$\therefore \text{Om } \Delta = s + s + s \\ = 25 + 17 + 8 + 20 \\ = 70 \text{ mm}$$

$$2.2) 2) \text{ opp} = \frac{1}{2} (b \times h) \\ = \frac{1}{2} (28 \times 15) \\ = 210 \text{ mm}^2$$

$$2.2) 3) \text{ Area } \Delta \text{RST} = \frac{1}{2} (b \times h) \\ 210 = \frac{1}{2} (25 \times \text{TX}) \\ 420 = 25 \times \text{TX} \\ \frac{420}{25} = \text{TX} \\ 16,8 \text{ cm} = \text{TX}$$

Donnerdag:

$$3.1) 1) \text{ Om} = 2\pi r \\ = 2\pi \times 4 \\ = 8\pi \\ \approx 25,13 \text{ mm}$$

$$3.1) 2) \text{ opp} = \pi r^2 \\ = \pi \times 4^2 \\ = 16\pi \\ \approx 50,27 \text{ mm}^2$$

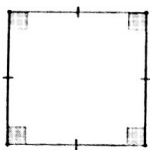
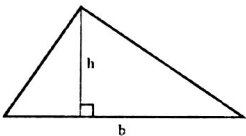
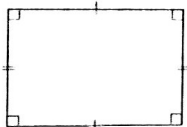
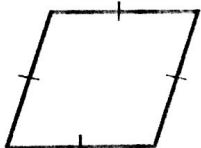
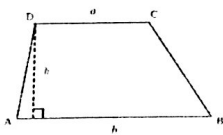
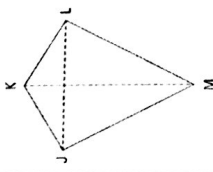
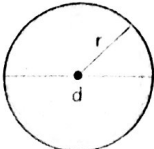
$$3.2) 1) \text{ opp} = \pi r^2 \\ 78,5 = \pi \times r^2 \\ \frac{78,5}{\pi} = r^2 \\ 24,99 = r^2 \\ \sqrt{24,99} = r \\ 5 = r$$

$$3.2) 2) \text{ Om} = 2\pi r \\ = 2 \times \pi \times 5 \\ = 10\pi \\ \approx 31 \text{ cm}$$

$$3.3) \text{ Om } \odot = 2\pi r \\ 64\pi = 2\pi r \\ \frac{64\pi}{2\pi} = 2\pi (x + 5) \\ \frac{64\pi}{2\pi} = x + 5 \\ 32 = x + 5 \\ 32 - 5 = x \\ 27 = x$$

GRAAD 9 - WISKUNDE (5 – 7 Aug)

Donderdag (6 Aug): LEER DIE VOLGENDE

	<u>OMTREK</u>	<u>OPPERVLAKTE</u>
<u>VIERKANT</u> 	Om = s + s + s + s	Opp = s x s
<u>DRIEHOEK</u> 	Om = s + s + s	Opp = $\frac{1}{2}$ (basis x $\perp$ hoogte)
<u>REGHOEK</u> 	Om = l + b + l + b	Opp = l x b
<u>PARALLELOGRAM</u> <u>RUIT</u> 	Om = s + s + s + s	Opp = basis x hoogte
<u>TRAPESIUM</u> 	Om = s + s + s + s	Opp = $\frac{1}{2}$ (som v <i>parallele sye</i> ) x hoogte
<u>VLIËËR</u> 	Om = s + s + s + s	Opp = $\frac{1}{2}$ (produk v <i>hoeklyne</i> )
<u>SIRKEL</u> 	Om = 2πr Om = dπ	Opp = πr <sup>2</sup>