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Memorandum gr 9 V2 Nov 2016

1.1.1 histogram ✓ (1) antw ✓

1.1.2 160 – 169 ✓ (1) interval ✓

1.1.3 $\frac{8}{29} \times \frac{100}{1} = 27,59\%$ ✓ (2) $\frac{8}{29}$ ✓ 27,59%

(7) mf, (29) 28 mf

1.2.1 $\frac{98}{16}$ ✓ = 6 ✓ Slegs antw ipunt (2) $\frac{98}{16}$ ✓ antw ✓

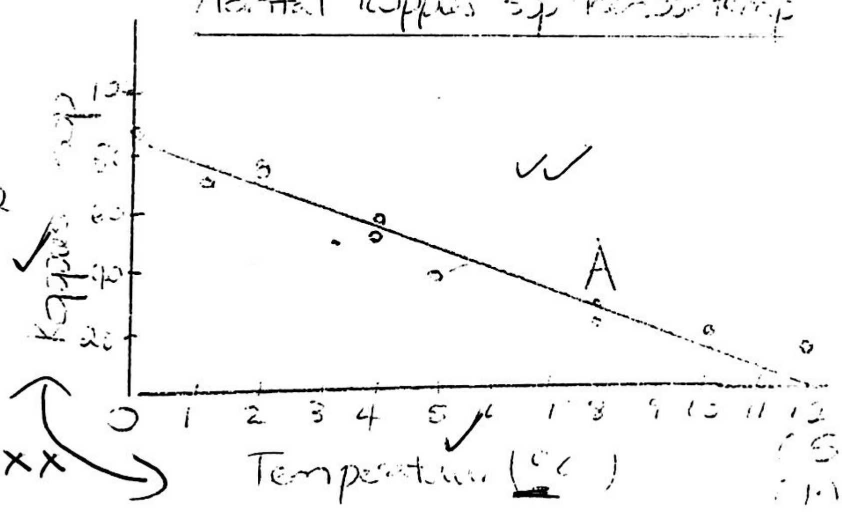
(R)

1.2.2 6 ✓ (1) antw ✓

1.2.3 9 – 3 = 6 ✓ (1) antw ✓

1.2.4 3 44 55 66666 77 888 ✓

6 ✓ (1) antw ✓



1.3.1 / 1.3.2 (5) x-as y-as opskrif ✓ punte korrek ✓ (1 fout) ✓ pas lyn

(1)

1.3.3 negatief (1) ✓ negatief

1.3.4 A op grafiek (1) ✓ A op grafiek

1.4.1 108° (1) 108°

1.4.2 $\frac{48}{360} \times \frac{100}{1} = 13,33\%$ (1) ✓ 13,33%

1.4.3 $\frac{30}{1} \times \frac{60}{360}$ 5 min slegs antw (2) 2/2

1.4.4 $15 \times \frac{100}{60} = 25$ leerders (2) ✓ 25 antw

2.11 $V = \pi r^2 H$ ✓ → verkeerd ingestel nf

$= \pi (8)^2 80$ ✓ $\pi = \frac{22}{7}$

$= 16064,95\ m^3$ ✓ (16071,43) (3)

formule ✓ subst ✓ antw ✓

2.12 $SO = 2\pi rH + \pi r^2$ ✓ ② verkeer 1 punt [2/3]

$= 2\pi(8)(80) + \pi(8)^2$ ✓ $\pi = \frac{22}{7}$ → 4233,6

$= 4222,30 m^2$ ✓ (4224) (3)

formule ✓ subst ✓ antw ✓

2.2 $x^2 = 15^2 - 9^2$ (Pyth.) ✓ skryf net ikeer.

$x = 12$ ✓

$y^2 = 8^2 + 12^2$ (Pyth.) ✓

$y = 14,42$ ✓ (4)

Stelling ✓ antw ✓ Stelling ✓ antw ✓

2.31 $T = \frac{A}{S}$

$= \frac{45}{90}$ ✓ $= 0,5625$ uur ✓

$= 34$ min ✓ (3)

Subst uur ✓ min ✓

2.32 $S = \frac{A}{t}$

$= \frac{45}{\frac{34}{60}}$ ✓ $= 55,1$ km/h ✓ (3)

tyd $(\frac{231}{34} + 15)$ ✓ nf in uur ✓ antw ✓

23.1 +15 min

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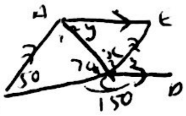
3.1 a = 110° (verw ∠e CD//EF) ✓ — S+R ✓
b = 70° (∠e op reguit lyn) — S+R ✓
c = 70° (verw ∠e AB//EF) ✓
of (ko-binne ∠e AB//EF) (3) — S+R ✓



3.2.1 x = 65° (ko-binne ∠e AB//EC) ✓ — S ✓ R ✓
3.2.2 y = 40° ✓ (ko-binne ∠e AB//EC) ook binnekant lyn — S ✓ R ✓

3.3 ∠B_2 = 72° (ooreenkomstige ∠e AE//BD) — S+R ✓
∠D = 72° (gelyke ∠e teenoor gelyke sye) — S+R ✓
∠C = 36° (som van ∠e Δ) — S+R ✓

4.1.1 SSS 4.1.2 S∠S 4.1.3 ∠∠S (3) ✓ ✓ ✓

4.2 In ΔABC en ΔDCB is
(1) AB = CD (gegee) — S+R ✓
(2) CB = CB (gemeenskaplik) — S+R ✓
(3) ∠C = ∠B (gegee) ✓ — S+R ✓
ΔABC ≡ ΔDCB (90° S∠S) (4) — S+R ✓

4.3.1 In ΔACD en ΔBAC is
(1) ∠A_1 = ∠C_1 (verw ∠e AB//DC) ✓ — S+R ✓
(2) AB = AC (gegee) ✓ — S+R ✓
(3) AE = DC (gegee) ✓ — S+R ✓
ΔACD ≡ ΔBAE (S∠S) ✓ (4) — S+R ✓

4.3.2 ∠A_2 = ∠B_2 (Δe ≡) ✓ — S+R ✓
∠E = ∠A_1 + ∠B_2 (buite ∠ v Δ) ✓ — S+R ✓
= ∠A_1 + ∠A_2
∴ ∠BAD = ∠BEC (2)

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5.1.1 In ΔPQT en ΔPRS is

(1) $\angle P = \angle P$ (gemeen) ✓ — S+R ✓

(2) $\angle Q_1 = \angle R$ (ooreenkomstige $QT \parallel RS$) ✓ — S+R ✓

(3) $\angle T_1 = \angle S$ (ooreenkomstig $QT \parallel RS$) ✓ — S+R ✓

$\therefore \Delta PQT \;|||\; \Delta PRS$ ($\angle\angle\angle$) ✓ — S+R ✓

(4)

5.1.2 $\frac{PQ}{PR} = \frac{QT}{RS} = \frac{PT}{PS}$ ✓ (Δ's $|||$) ✓ — verhoudings ✓ regte ✓

$\frac{3}{3+x} = \frac{4,5}{6}$

$13,5 + 4,5x = 18$

$4,5x = 4,5$

$x = 1$ ✓ (3) ens. ✓

5.2.1 $\frac{22,5}{5} = 4,5$ ✓

$\frac{13,5}{3} = 4,5$ ✓

$\frac{9}{2} = 4,5$ ✓

$\therefore \Delta DEH \;|||\; \Delta FGE$ (Sye in dieselfde verhouding / eweredig) (4) ✓ Δe volgorde en R

5.2.2 $\angle E_2 = \angle H$ ✓ (1) ∠H ✓

5.2.3 $DH \parallel EF$ (verw. $\angle$'e =) (2) S ✓ R ✓

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