

Naam:.....

WISKUNDE
GRAAD 8
Eksaminator:
Moderators:

OKTOBER 2015
PUNTE: 50
TYD: 60 min

INSTRUKSIES EN INLIGTING
INSTRUCTIONS AND INFORMATION

1. Beantwoord al die vrae op folio papier en nommer die antwoorde korrek volgens die nommeringstelsel op die vraestel.
Answer all the questions on folio paper and number your answers according to the numbering system in the question paper.
2. Jy mag 'n NIE 'N SAKREKENAAR gebruik NIE.
You may NOT USE A CALCULATOR.
3. Toon ALLE bewerkings duidelik aan.
Show ALL calculations clearly.
4. Skryf netjies en leesbaar.
Write neatly and legibly.
5. Laat 'n reël oop tussen elke som.
Leave a line open between each sum.
6. Vraag 1 kan op die diagramblad beantwoord word.
Question 1 can be answered on your diagram sheet.

VRAAG 1/QUESTION 1

- 1.1 Voltooi die tabel hier onder om die verskillende waardes van y te bepaal as die vergelyking $y = 2x + 3$ is
Complete the table below to find the value of y in the equation $y = 2x + 3$

x	-3	-2	-1	0	1	2	3
$y = 2x + 3$							

(7)

- 1.2 Plot die koördinate as punte op die Cartesiese vlak en verbind hulle met 'n reguit lyn
Plot the coordinates on the Cartesian plane and connect with a straight line.

(5)

- 1.3 Op 'n Cartesiese vlak, met x -waardes vanaf -5 tot 5 , y -waardes vanaf -5 tot 5 , plot die volgende punte.
On a Cartesian plane, with x values from -5 to 5 , y values from -5 to 5 , plot the following points

A(2; 4), B(1; 2), C(-2; 5), D(-3; -3), E(-2; -4), F(0; -3), G(-4; 0), H(2; -3)

(8)

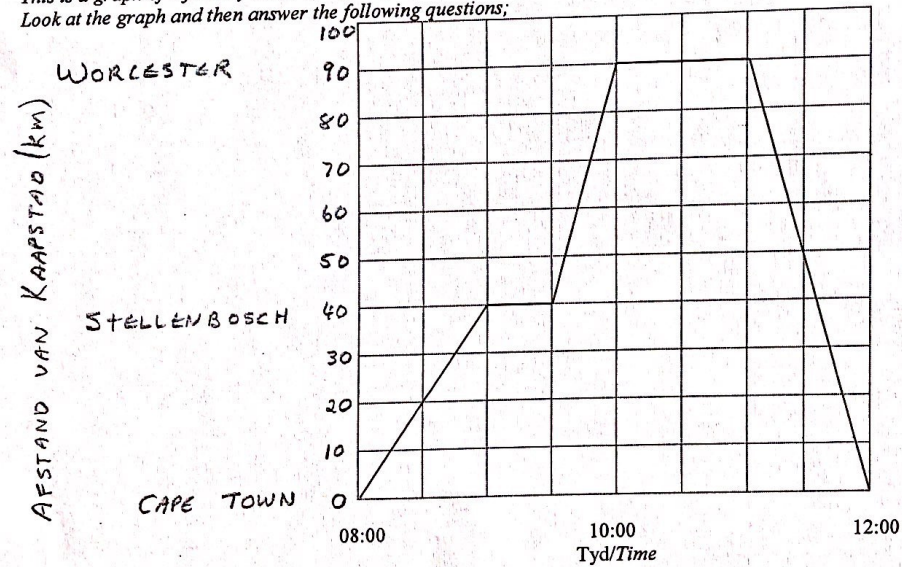
[20]

VRAAG 2/ QUESTION 2

- 2.1 Los op vir x: (2)
 Solve for x: (3)
- 2.1.1 $5x - 3 = 4x + 2$ (3)
 2.1.2 $3x + 8 = 9x - 16$ (3)
 2.1.3 $4(x - 2) = 3(x + 2)$ (5)
 2.1.4 $3(2x - 1) - 2(x - 4) = 19$ (4)
 2.1.5 $2 \cdot 3^x - 1 = 17$
- 2.2 Bepaal die waardes van twee getalle as hulle som 12 is en die verskil tussen hulle is 4 (3)
 Find the value of two numbers if their sum is 12 and their difference is 4 [20]

VRAAG 3/ QUESTION 3

Die figuur toon 'n grafiek van 'n reis van 'n gesin in 'n motor tussen Kaapstad, Stellenbosch en Worcester.
 Bestudeer die grafiek en beantwoord dan die volgende vrae;
 This is a graph of a journey made by a family in a car between Cape Town, Stellenbosch and Worcester.
 Look at the graph and then answer the following questions;



- 3.1 Hoe laat het die gesin in Worcester aangekom? (2)
 What time did the family arrive in Worcester?
- 3.2 Wat is die afstand tussen Stellenbosch en Worcester? (2)
 What is the distance from Stellenbosch to Worcester?
- 3.3 Hoe lank het die gesin tyd spandeer op Worcester? (2)
 How long did the family spend not moving?
- 3.4 Wat was die gemiddelde spoed van hulle reis terug huis toe? (4)
 What was the average speed on the journey home? [10]

NAAM:.....

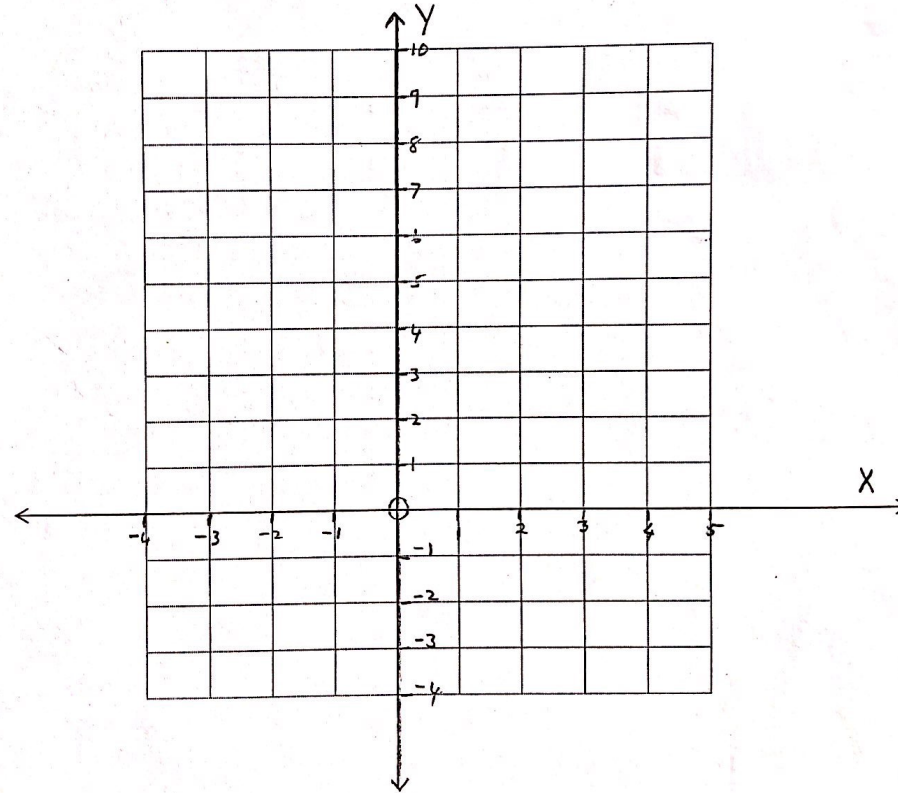
DIAGRAMBLAD/DIAGRAM SHEET

VRAAG 1/QUESTION 1

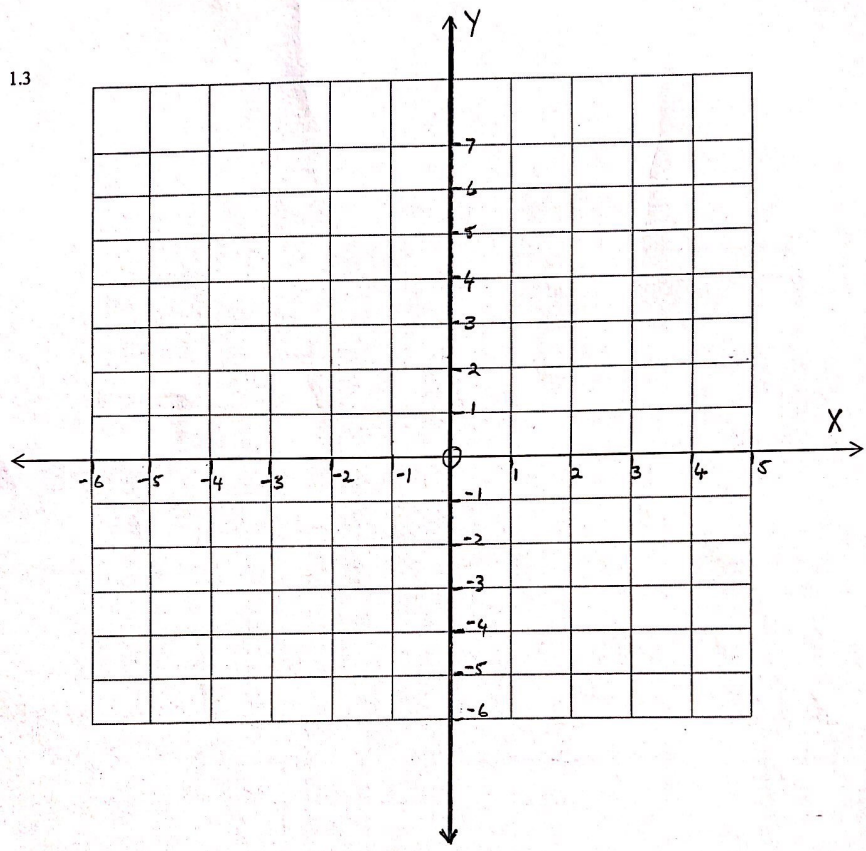
1.1

x	-3	-2	-1	0	1	2	3
$y = 2x + 3$							

1.2



13



MEMORANDUM.

WISKUNDE
 GRAAD 8
 EKSAMINATOR:
 MODERATOR:

OCTOBER 2015
 Punte: 50
 TYD: 60 min

VRAAG 2

- 2.1.1) $5x - 3 = 4x + 2$
 $5x - 4x = 2 + 3$
 $x = 5$ (2) ✓ inverse
 ✓ antw
- 2.1.2) $3x + 8 = 9x - 16$
 $3x - 9x = -16 - 8$
 $-6x = -24$
 $x = 4$ (3) ✓ inverse
 ✓ vereenvoudig
 ✓ antw
- 2.1.3) $4(x - 2) = 3(x + 2)$
 $4x - 8 = 3x + 6$
 $4x - 3x = 6 + 8$
 $x = 14$ (3) ✓ vermenigvuldig
 ✓ inverse
 ✓ antw
- 2.1.4) $3(2x - 1) - 2(x - 4) = 19$
 $6x - 3 - 2x + 8 = 19$
 $6x - 2x = 19 + 3 - 8$
 $4x = 14$
 $x = \frac{14}{4} = \frac{7}{2}$
 of $3\frac{1}{2}$ (5) ✓ vermenigvuldig ()
 ✓ inverse
 ✓ vereenvoudig
 ✓ antw (eenvoudigste)
- 2.1.5) $2 \cdot 3^x - 1 = 17$
 $2 \cdot 3^x = 18$
 $3^x = 9$
 $3^x = 3^2$
 $x = 2$ (3) ✓ inverse
 ✓ inverse
 ✓ mag
 ✓ antw

2.2) $z - (12 - x) = 4$ ✓ vergelyking
 $x - 12 + x = 4$
 $2x = 16$
 $x = 8$

∴ 8 en 4 ✓✓ elke antw

of $x + (x + 4) = 12$
 $2x = 12 - 4$
 $2x = 8$
 $x = 4$

∴ 4 en 8 ✓✓ elke antw

VRAAG 3

- 3.1) 10:00 of 10 uur (2) ✓✓ antw
- 3.2) $90 - 40 = 50 \text{ km}$ (2) ✓✓ antw eenheid
- 3.3) 1 uur (2) ✓✓ antw eenheid
- 3.4) $\text{SPEED} = \frac{\text{AFSTAND}}{\text{TYD}}$
 $= \frac{90}{1}$
 $= 90 \text{ km/h}$ ✓ formule
 ✓ subst
 ✓✓ antw eenheid

NAAM: Memo

DIAGRAMBLAD/DIAGRAM SHEET

VRAAG / QUESTION 1

1.1

x	-3	-2	-1	0	1	2	3
$y = 2x + 3$	-3 ✓	-1 ✓	1 ✓	3 ✓	5 ✓	7 ✓	9 ✓

