

Vraag 1

- 1.1 Waar ✓
- 1.2 Onwaar ✓
- 1.3 Onwaar ✓
- 1.4 Onwaar ✓
- 1.5 Onwaar ✓

- antw ✓
- antw ✓
- antw ✓
- antw ✓
- antw ✓ (5)

1.2.1  $-5x^3 - 3x^2 + x - 2$  ✓

alles korrek ✓ (1)

1.2.2 4 ✓

4 ✓ (1)

1.2.3 -5 ✓

-5 ✓ (1)

1.2.4 -2 ✓

-2 ✓ (1)

1.2.5 3 ✓

3 ✓ (1)

1.2.6  $-5(-1)^3 - 3(-1)^2 + (-1) - 2$  ✓  
 $= -1$  ✓

instelling ✓  
-1 ✓ (2)

1.3

1.3.1 
$$\begin{array}{r} 2 \overline{) 62} \\ 3 \overline{) 21} \\ 7 \overline{) 7} \\ 1 \end{array}$$

$$\begin{array}{r} 2 \overline{) 60} \\ 2 \overline{) 30} \\ 3 \overline{) 15} \\ 5 \overline{) 5} \end{array}$$

$2 \times 3 \times 7$  ✓

$2^2 \times 3 \times 5$  ✓

$2 \times 3 \times 7$  ✓  
 $2^2 \times 3 \times 5$  ✓ (2)

$$1.3.2 \quad LCV = 2^2 \times 3 \times 5 \times 7 \checkmark$$

$$= 420 \checkmark$$

(2)

$$1.3.3. GCD = 2 \times 3 \checkmark$$

$$= 6 \checkmark$$

(2)

1/8 |

Vraag 2

$$2.1 \quad \frac{5}{61} \times \frac{305}{1} \checkmark$$

$$= R25 \checkmark$$

Bewerking ✓  
Antwoord ✓ (2)

$$2.2 \quad \frac{3}{8} \times \frac{80}{1} \checkmark$$

$$= R30 \checkmark$$

Stegs antwoord ✓

$$\frac{5}{8} \times \frac{80}{1} \checkmark$$

$$= R50 \checkmark$$

Stegs antwoord (2)

$$2.3 \quad \text{Opsie 1: } \frac{15}{2}$$

$$= 7,5 \checkmark$$

$$\text{Opsie 2: } \frac{42}{6}$$

$$= 7 \checkmark$$

7,5 ✓

7 ✓

$$\text{Opsie 3} \checkmark$$

opsie 2 ✓ (3)

2.4 Enkelewendige Rente =  $6000 \times \frac{15}{100} \times \frac{4}{1}$  ✓ Bewerting  
antwoord (2)  
 = R3600 ✓ MF

2.5  $R300 \times 12$  ✓ Bewerting  
 = 3600 ✓ antwoord (2)

2.6  $\frac{15}{100} \times \frac{400}{1}$  ✓ Bewerting  
 = R60 ✓ antwoord  
1/31 (2)

### Vraag 3

3.1.1  $-4 + 15 - 6$   
 = 5 ✓ 5 (1)

3.1.2  $-3^2 + (-2)^2 - (-1)^{101}$   
 =  $-9 + 4 - (-1)$   
 =  $-9 + 4 + 1$   
 =  $-4$  ✓ -9, 4, -(-1)  
+1  
-4 (5)

3.1.3 ongedefinieerd ✓ antw (1)

3.1.4 0 ✓ antw (1)

3.1.5  $54 \div (-6) - (-2)$   
 =  $-9 + 2$   
 =  $-7$  ✓ -9 + 2  
-7 (3)

3.1.6  $4^2 - \sqrt{64}$   
 $= 16 - 8$   
 $= 8$  ✓

16 en -8 ✓  
 antwoord ✓ (2)

3.1.7  $\sqrt{1 \frac{9}{16}}$   
 $= \sqrt{\frac{25}{16}}$  ✓  
 $= \frac{5}{4}$  ✓

onechte breuk ✓  
 antwoord ✓ (2)

3.2  $= 12 + 15 - 11$  ✓  
 $= -16$  ✓

-12 -15 -11 ✓  
 -16 (stegs antwoord)  
 v= puntje (2)

3.3  $160.000$   
 $= 1,6 \times 10^5$  ✓

$1,6$  ✓  
 $10^5$  ✓ (2)  
 1/19 |

Vraag 4

4.1	Aantal vinkte	1	2	3	4	10
	Aantal stekkes	4	7	10	13 ✓	31 ✓
						13 ✓ 31 ✓ (3)

4.2  $T_n = 3n + 1$  ✓  $3n + 1$  (2)

15 |



Vraag 5

5.1  $3x^2 + 4x$  ✓

Skryf net so oor (1)

5.2  $-4c^5x - 6c^2$   
 $= 24c^7$  ✓

$24 c^7$  (2)

5.3  $(-3a^3)^2$   
 $= 9a^6$  ✓

$9 a^6$  (2)

5.4  $\sqrt{25x^2 + 4x^2}$   
 $= \sqrt{36x^2}$  ✓  
 $= 6x$  ✓

optelling:  $36x^2$   
 $6x$  ✓ (2)

5.5  $-4a^0$   
 $= -4$  ✓

$-4$  (1)

5.6  $-3(2d - 4) + 6d$   
 $= -6d + 12 + 6d$   
 $= 12$  ✓

uitmaak van hakkes  
antwoord (3)

5.7  $\frac{-48a^6}{6a^3b}$   
 $= -8a^3$  ✓  
 $b$  ✓

$-8 a^3$   
 $b$  (3)

5.8  $\sqrt{a^2} + \sqrt[3]{a^3}$   
 $= a + a$  ✓  
 $= 2a$  ✓

Vierkantswortel:  $a$  ✓  
derdemagswortel:  $a$  ✓  
antwoord:  $2a$  (3)

5.9  $\frac{-12b^3 - 8b^2 + 6b}{3b}$  ✓ ✓ ✓

elke korrekte term ✓ ✓ ✓

Vraag 6

6.1  $5a - 2b + 3c; -a - 3b - 8c$   
 $= 4a - 5b - 5c$

elke korrekte term (3)

6.2  $5c^2 - 2 - (-3c^2 + 4)$   
 $= 5c^2 - 2 + 3c^2 - 4$   
 $= 8c^2 - 6$

orde  
uitmaak van haakjes  
gelijksortige termen  
 $8c^2 - 6$  (4)

6.3  $-x^2 + 3y$   
 $= -(2)^2 + 3(-1)$   
 $= -7$

instelling  
antwoord (2)  
/9/

Vraag 7

7.1  $x - 4 = 9$   
 $x = 13$

antw (1)

7.2  $-3x = -18$   
 $x = 6$

antw (1)

7.3  $4x + 2 = -18$   
 $4x = -20$   
 $x = -5$

Neem konstante na  $4x$   
deel door 4 (2)

7.4  $\frac{4x}{5} = 8$

$4x = 40$   
 $x = 10$

maal met 5  
deel door 4 (2)



$$7.1.5 \quad 8x - 8 = 16x + 16$$

$$-6x = 24 \checkmark$$

$$x = -4 \checkmark$$

Neem  $x^2$  na LK  $\checkmark$

Neem konstante na RK  $\checkmark$

antwoord  $\checkmark$  (3)

$$7.1.6 \quad 5^x - 1 = 124$$

$$5^x = 125 \checkmark$$

$$5^x = 5^3 \checkmark$$

$$x = 3 \checkmark$$

konstante na RK  $\checkmark$

priemfactoriseer  $\checkmark$

antwoord  $\checkmark$  (3)

7.2 Gesk:  $x$

Wisk:  $x + 5$

$$x + x + 5 = 117 \checkmark$$

$$2x = 112$$

$$x = 56$$

Wisk: 61  $\checkmark$

Gesk: 56  $\checkmark$

Vergelyking  $\checkmark$

gelyksoortige terme  $\checkmark$

Neem konstante na RK

Wisk: 61  $\checkmark$

Gesk: 56  $\checkmark$

Slegs antwoord: 2 punte  $\checkmark$

(4)

/16/

[Totaal: 100]