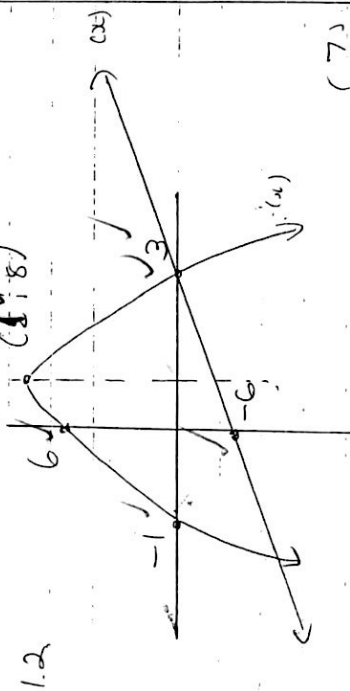


Memorandum
Gr 11 Toets - funksies

1.1. $y = -2x^2 + 4x + 6$
 $= -2(x^2 - 2x - 3)$ ✓
 $= -2(x^2 - 2x + 1 - 4)$ ✓
 $= -2(x-1)^2 + 8$ ✓
 $(1, 8)$ ✓



1.3. $y \leq 8, y \in \mathbb{R} / y \in (-\infty; 8]$ (1) (1)

1.4. $-1 \leq x \leq 3, x \in \mathbb{R}$
of $x \in [-1; 3]$ (2)

1.5. $(1, 10)$ ✓
[16]

- ✓ gemene faktor $y + 1 - 1$
- ✓ faktorisering
- ✓ vermenigvuldiging
- (4)

- Parabool
- ✓ draaipunt
- ✓ y-afsnit
- ✓ x-afsnitte

- Requit lyn
- ✓ x-afsnit
- ✓ y-afsnit
- (7) (7)

- ✓ wies
- (1) (1)

- ✓ grense
- ✓ notasie
- (2)

- ✓ x-waarde
- ✓ y-waarde
- (2)

[16]

2.1. $y = \frac{1}{4} \cdot 2^x + 6$
 $= 2^{-2} \cdot 2^x + 6$
 $= 2^{x-2} + 6$

$p = -2$

$y = x + 2$

2.3. A. $y = \frac{1}{4} \cdot 2^0 + 6 = 6\frac{1}{4}$

B. $y = \frac{1}{4} \cdot 2^3 + 6 = 5\frac{3}{4}$

AD = 2 ✓

2.4.1. $\frac{1}{2-4} + 6 = 0$ ✓

$\frac{1}{2-4} = -6$

$-6x + 24 = 1$

$-6x = -23$

$x = 2\frac{3}{6} = (3,83)$

F (3,83; 0)

2.4.2. $x=4, y = \frac{1}{4} \cdot 2^4 + 6 = 10$

C (4; 10)

2.5. $h(x) = \frac{1}{-x-4} + 6$

$= \frac{1}{-(x+4)} + 6$

$= \frac{1}{x+4} + 6$

(2)

2.6. $x=1, y = \frac{1}{4} \cdot 2^1 + 6 = 6\frac{1}{2}$ ✓

$y=7, \frac{1}{4} \cdot 2^x + 6 = 7$ ✓

$2^{x-2} = 1 = 2^0$

$x=2$ ✓

$\bar{m} = \frac{6\frac{1}{2} - 7}{1 - 2} = \frac{1}{2}$ ✓

(5)

[19]

- ✓ eksp wvm
- ✓ p waarde
- ✓ x VC-waarde
- ✓ y-waarde A
- ✓ y-waarde B
- ✓ lengte AD
- ✓ vgl = 0
- ✓ x-waarde
- ✓ koördinaat
- ✓ x-waarde
- ✓ y-waarde
- ✓ volledige manipulasie
- ✓ y-waarde
- ✓ vgl = 7
- ✓ x-waarde
- ✓ m subst
- ✓ m