

# KLASKAMER 10

## GRAAD 10 WISKUNDE: EPISODE 37

### ALGEBRAÏESE VERGELYKINGS 1

#### VRAAG 1:

Los op vir  $x$  in elk van die volgende:

a.  $\frac{x+1}{4} - 2x = \frac{x+2}{3}$  (4)

b.  $2x^2 - 5x = 3$  (3)

c.  $mx + 1 = 2m(m - x)$  (3)

d. Los op vir  $x$  en  $y$  in die volgende:  $x + y = 7$  en  $2x - y = 5$  (5)

**BLIKslim**

[www.klaskamer10.co.za](http://www.klaskamer10.co.za)

TOTAAL: 15 PUNTE

# GRAAD 10 WISKUNDE: EPISODE 37 (MEMORANDUM)

## ALGEBRAÏESE VERGELYKINGS 1

### VRAAG 1

a)	$\frac{x+1}{4} - 2x = \frac{x+2}{3} \quad \text{KGV: 12}$ $\therefore 3(x+1) - 24x = 4(x+2) \checkmark$ $\therefore 3x + 3 - 24x = 4x + 8 \checkmark$ $\therefore -5 = 25x \checkmark$ $\therefore x = -\frac{1}{5} \checkmark$
b)	$2x^2 - 5x = 3$ $\therefore 2x^2 - 5x - 3 = 0$ $\therefore (2x+1)(x-3) = 0 \checkmark$ $\therefore x = -\frac{1}{2} \checkmark \text{ of } x = 3 \checkmark$
c)	$mx + 1 = 2m(m-x)$ $\therefore mx + 1 = 2m^2 - 2mx \checkmark$ $\therefore mx + 2mx = 2m^2 - 1 \checkmark$ $\therefore 3mx = 2m^2 - 1$ $\therefore x = \frac{2m^2 - 1}{3m} \checkmark$
d)	$x + y = 7 \dots (1)$ $2x - y = 5 \dots (2)$ $\text{Uit (1): } y = -x + 7 \dots (3) \checkmark$ $\text{Vervang (3) in (2):}$ $2x - (-x + 7) = 5 \checkmark$ $\therefore 2x + x - 7 = 5$ $\therefore 3x = 12 \therefore x = 4 \checkmark$ $\text{Vervang in (3):}$ $y = -4 + 7 = 3 \checkmark$ $\therefore (x;y) = (4;3) \checkmark$