

KLASKAMER 10

GRAAD 8 & 9 WISKUNDE: EPISODE 41

ALGEBRAÏESE VERGELYKINGS 1

VRAAG 1:

Los op vir x in elkeen van die volgende:

- a. $2x + 4 = x + 6$ (2)
- b. $2(x + 4) = 4(x + 1)$ (3)
- c. $2(x + 5) - 7 = 3(x - 2)$ (3)
- d. $\frac{5}{4}x + \frac{1}{2} = 2x - \frac{1}{2}$ (2)
- e. $3(2x + 1) = 2x - 5$ (2)
- f. $\frac{x+1}{5} = 2x + 12$ (3) [15]

VRAAG 2:

Los op vir x in elkeen van die volgende:

- a. $6(x - 3) - 4(x - 2) = 5 - 3x$ (4)
- b. $(x + 2)(x + 5) = x(x - 1)$ (4)
- c. $3(2x - 1) + 5(1 + 7x) = 16(2x - 4)$ (4)
- d. $2(x + 3) - 4(x - 1) = 5$ (3) [15]

TOTAAL: 30 PUNTE

GRAAD 8 & 9 WISKUNDE: EPISODE 41 (MEMORANDUM)

ALGEBRAÏESE VERGELYKINGS 1

VRAAG 1

a)	$2x + 4 = x + 6$ $\therefore x = 2 \checkmark \checkmark$	b)	$2(x + 4) = 4(x + 1)$ $\therefore 2x + 8 = 4x + 4 \checkmark$ $\therefore 4 = 2x \checkmark \therefore x = 2 \checkmark$
c)	$2(x + 5) - 7 = 3(x - 2)$ $\therefore 2x + 10 - 7 = 3x - 6 \checkmark$ $\therefore 10 - 7 + 6 = 3x - 2x \checkmark$ $\therefore 9 = x \checkmark$	d)	$\frac{5}{4}x + \frac{1}{2} = 2x - \frac{1}{2}$ $\therefore 1 = \frac{3}{4}x \checkmark$ $\therefore \frac{4}{3} = x \checkmark$
e)	$3(2x + 1) = 2x - 5$ $\therefore 6x + 3 = 2x - 5 \checkmark$ $\therefore 4x = -8 \therefore x = -2 \checkmark$	f)	$\frac{x + 1}{5} = 2x + 12$ $\therefore x + 1 = 10x + 60 \checkmark$ $\therefore -59 = 9x \checkmark \therefore x = -\frac{59}{9} \checkmark$

VRAAG 2

a)	$6(x - 3) - 4(x - 2) = 5 - 3x$ $\therefore 6x - 18 - 4x + 8 = 5 - 3x \checkmark$ $\therefore 6x - 4x + 3x = 5 + 18 - 8 \checkmark$ $\therefore 5x = 15 \checkmark \therefore x = 3 \checkmark$
b)	$(x + 2)(x + 5) = x(x - 1)$ $\therefore x^2 + 5x + 2x + 10 = x^2 - x \checkmark$ $\therefore 5x + 2x + x = -10 \checkmark$ $\therefore 8x = -10 \checkmark \therefore x = -\frac{5}{4} \checkmark$
c)	$3(2x - 1) + 5(1 + 7x) = 16(2x - 4)$ $\therefore 6x - 3 + 5 + 35x = 32x - 64 \checkmark$ $\therefore 6x + 35x - 32x = -64 + 3 - 5 \checkmark$ $\therefore 9x = -66 \checkmark \therefore x = -\frac{66}{9} = -\frac{22}{3} \checkmark$
d)	$2(x + 3) - 4(x - 1) = 5$ $\therefore 2x + 6 - 4x + 4 = 5 \checkmark$ $\therefore 2x - 4x = 5 - 6 - 4 \checkmark$ $\therefore -2x = -5 \therefore x = \frac{5}{2} \checkmark$

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