

KLASKAMER 10

GRAAD 10 WISKUNDE: EPISODE 7

PRODUKTE

VRAAG 1:

Vereenvoudig elk van die volgende:

1.1 $2(x - 3)^2 + (x - 1)(x^2 + 3x - 2) + (x - 1)(x + 1)$ (5)

1.2 $a(a + b)(a - b) - a(a^2 + 2ab - b^2) + (a - 4b)^2$ (5)

BLIKslim

www.klaskamer10.co.za

TOTAAL: 10 PUNTE

VRAAG 1

1.1

$$\begin{aligned}
 & 2(x-3)^2 + (x-1)(x^2+3x-2) + (x-1)(x+1) \\
 &= 2(x^2-6x+9) + x^3+3x^2-2x-x^2-3x+2 + x^2-1 \\
 &= 2x^2-12x+18 + x^3+3x^2-2x-x^2-3x+2 + x^2-1 \\
 &= x^3+5x^2-17x+19
 \end{aligned}$$

1.2

$$\begin{aligned}
 & a(a+b)(a-b) - a(a^2+2ab-b^2) + (a-4b)^2 \\
 &= a(a^2-b^2) - a^3-2a^2b+ab^2 + a^2-8ab+16b^2 \\
 &= a^3-ab^2-a^3-2a^2b+ab^2+a^2-8ab+16b^2 \\
 &= -2a^2b+a^2-8ab+16b^2
 \end{aligned}$$