

# KLASKAMER 10

## GRAAD 10 WISKUNDE: EPISODE 27

### ALGEBRAÏESE UITDRUKKINGS

#### VRAAG 1:

Vereenvoudig elk van die volgende sover as moontlik:

a.  $\frac{\frac{2x+2}{y}}{\frac{x+1}{xy}} + \frac{\frac{x^2+7x+12}{x^2+3x}}{\frac{x+4}{x^2}}$  (5)

b.  $\frac{x^2-9x+18}{x^2-13x+36} - \frac{x}{x-4}$  (5)

**BLIKslim**

TOTAAL: 10 PUNTE

# GRAAD 10 WISKUNDE: EPISODE 27 (MEMORANDUM)

## ALGEBRAÏESE UITDRUKKINGS

### VRAAG 1

$$\begin{aligned}
 \text{a)} \quad & \left( \frac{2x+2}{y} \div \frac{x+1}{xy} \right) + \left( \frac{x^2+7x+12}{x^2+3x} \div \frac{x+4}{x^2} \right) \\
 & = \left( \frac{2\cancel{(x+1)}^\checkmark}{y} \times \frac{xy}{\cancel{(x+1)}} \right) + \left( \frac{\cancel{(x+3)}^\checkmark \cancel{(x+4)}^\checkmark}{x\cancel{(x+3)}^\checkmark} \times \frac{x^x}{\cancel{(x+4)}} \right) \\
 & = 2x + x^\checkmark \\
 & = 3x^\checkmark
 \end{aligned}$$

$$\begin{aligned}
 \text{b)} \quad & \frac{x^2-9x+18}{x^2-13x+36} - \frac{x}{x-4} \\
 & = \frac{(x-3)(x-6)}{(x-9)(x-4)} - \frac{x}{(x-4)}^\checkmark \\
 & = \frac{(x-3)(x-6) - x(x-9)}{(x-9)(x-4)}^\checkmark \\
 & = \frac{\cancel{x^2} - 9\cancel{x} + 18 - \cancel{x^2} + 9\cancel{x}}{(x-9)(x-4)}^\checkmark \\
 & = \frac{18}{(x-9)(x-4)}^\checkmark
 \end{aligned}$$

**BLIK** slim  
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