

KLASKAMER 10

GRAAD 10 WISKUNDE: EPISODE 52

TRIGONOMETRIE 2

VRAAG 1:

Indien $5 \sin \theta - 3 = 0$ en $\theta \in [0^\circ; 90^\circ]$, bepaal met behulp van 'n skets, sonder die gebruik van 'n sakrekenaar, die waarde van:

a. $\sin^2 \theta + \cos^2 \theta$ (5)

b. $\frac{1}{\sin \theta} + \frac{1}{\cos \theta} - \tan \theta$ (5)

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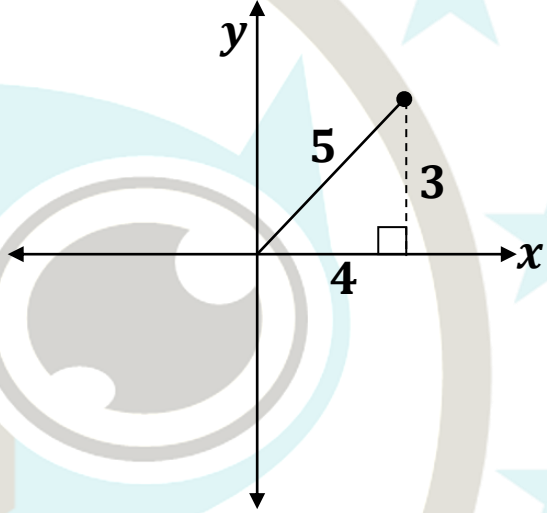
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TOTAAL: 10 PUNTE

GRAAD 10 WISKUNDE: EPISODE 52 (MEMORANDUM)

TRIGONOMETRIE 2

VRAAG 1

<p>a)</p>	$5 \sin \theta - 3 = 0$ $\therefore \sin \theta = \frac{3}{5} \checkmark$ $x^2 + y^2 = r^2 \text{ (Pythagoras)} \checkmark$ $x^2 + (3)^2 = (5)^2$ $x^2 + 9 = 25 \therefore x^2 = 16 \therefore x = 4 \checkmark$ $\sin^2 \theta + \cos^2 \theta$ $= \left(\frac{3}{5}\right)^2 + \left(\frac{4}{5}\right)^2$ $= 1 \checkmark$	
<p>b)</p>	$\frac{1}{\sin \theta} + \frac{1}{\cos \theta} - \tan \theta$ $= \frac{1}{\left(\frac{3}{5}\right) \checkmark} + \frac{1}{\left(\frac{4}{5}\right) \checkmark} - \frac{3}{4} \checkmark$ $= \frac{13}{6} \checkmark$	

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