

# Memorandum - grill Trg

$$\begin{aligned}
 1.1. \quad & \frac{1 - \cos^2(180-x)}{\cos(-x) \sin(x-90^\circ)} \\
 &= \frac{1 - \cos^2 x}{\cos x \cdot (-\cos x)} \\
 &= \frac{\sin^2 x}{\cos^2 x} \\
 &= -\tan^2 x
 \end{aligned}$$

(5)

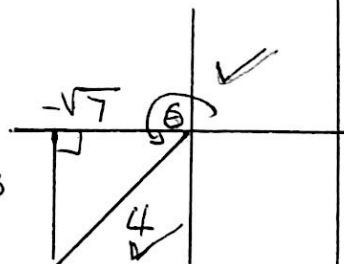
$$\begin{aligned}
 & \cos^2 x \\
 & \cos x \cdot \cos x \\
 & \sin^2 x \\
 & \tan^2 x
 \end{aligned}$$

$$\begin{aligned}
 1.2 \quad & \frac{1}{1 + \cos(180+\theta)} + \frac{1}{1 + \sin(90+\theta)} \\
 &= \frac{1}{1 - \cos \theta} + \frac{1}{1 + \cos \theta} \\
 &= \frac{1 + \cos \theta + 1 - \cos \theta}{(1 - \cos \theta)(1 + \cos \theta)} \\
 &= \frac{2}{1 - \cos^2 \theta} \\
 &= \frac{2}{\sin^2 \theta}
 \end{aligned}$$

(5)  
[10]

$$\begin{aligned}
 & -\cos \theta \\
 & \cos \theta \\
 & \sqrt{\text{kgv en teller}} \\
 & 1 - \cos^2 \theta \\
 & \frac{2}{\sin^2 \theta}
 \end{aligned}$$

$$2. \quad \tan \theta = \frac{3}{\sqrt{7}}$$



$$\begin{aligned}
 2.1 \quad & 4 \cos^2 \theta - \sin(180+\theta) \\
 &= 4 \left( \frac{-\sqrt{7}}{4} \right)^2 + \sin \theta \\
 &= \frac{7}{4} + \frac{-3}{4} = 1
 \end{aligned}$$

(6)

$$\begin{aligned}
 & \text{regte kwadrant en negatiewe waardes skynsly} \\
 & -\frac{\sqrt{7}}{4} \quad \sin \theta \\
 & -\frac{3}{4} \quad 1
 \end{aligned}$$

$$\begin{aligned}
 2.2 \quad & \cos \alpha = \cos(540^\circ - \theta) \\
 &= -\cos \theta \\
 &= -\left( \frac{-\sqrt{7}}{4} \right) = \frac{\sqrt{7}}{4}
 \end{aligned}$$

(2)  
[8]

$$\begin{aligned}
 & -\cos \theta \\
 & \frac{\sqrt{7}}{4}
 \end{aligned}$$

$$\begin{aligned}
 3.1 \text{ LK } & \frac{\cos^2 \alpha \sin^2 \alpha + \cos^4 \alpha}{1 - \sin \alpha} \\
 &= \frac{\cos^2 \alpha (\sin^2 \alpha + \cos^2 \alpha)}{1 - \sin \alpha} \checkmark \\
 &= \frac{\cos^2 \alpha}{1 - \sin \alpha} \checkmark \\
 &= \frac{1 - \sin^2 \alpha}{1 - \sin \alpha} \checkmark \\
 &= \frac{(1 + \sin \alpha)(1 - \sin \alpha)}{(1 - \sin \alpha)} = 1 + \sin \alpha = \text{RK} \checkmark \\
 & \quad \quad \quad (5)
 \end{aligned}$$

faktoriseer  $\checkmark$   
 $\sin^2 \alpha + \cos^2 \alpha = 1$   
 $1 - \sin^2 \alpha$   $\checkmark$   
 faktoriseer  $\checkmark$   
 antw  $\checkmark$

$$\begin{aligned}
 3.2 \text{ LK: } & \frac{1 - 2 \sin \alpha \cos \alpha}{\sin \alpha \cos \alpha} \\
 &= \frac{\sin^2 \alpha - 2 \sin \alpha \cos \alpha + \cos^2 \alpha}{\sin \alpha \cos \alpha} \checkmark \\
 &= \frac{(\sin \alpha - \cos \alpha)(\sin \alpha + \cos \alpha)}{(\sin \alpha - \cos \alpha)} \checkmark \\
 &= \sin \alpha + \cos \alpha \checkmark \\
 & \quad \quad \quad (3) \\
 & \quad \quad \quad [8]
 \end{aligned}$$

$1 - \sin^2 \alpha + \cos^2 \alpha$   $\checkmark$   
 faktoriseer  $\checkmark$   
 antw  $\checkmark$

4.1  $a = 1, b = 2, p = 45^\circ$   $\checkmark$

4.2  $-90^\circ < \alpha < 0^\circ$  of  $\alpha \in (-90^\circ; 0^\circ)$   $\checkmark$

4.3  $90^\circ$   $\checkmark$

4.4  $-4$   $\checkmark$

4.5 transleer  $90^\circ$  na regs  $\checkmark$

$a$   $\checkmark$   
 $b$   $\checkmark$   
 $p$   $\checkmark$   
 $-90^\circ$   $\checkmark$   
 $0^\circ$   $\checkmark$   $(-IN)$   
 $90^\circ$   $\checkmark$   
 $-4$   $\checkmark$   
 $90^\circ$   $\checkmark$   
 regs  $\checkmark$

[9]