Trigonometry Q5 (30/6/23)

Solve:

(i) $\sin\theta = 0.5$ (no restriction on θ)

(ii) $\cos\theta = 0.5$ (no restriction on θ)

where θ is in radians

Solution

(i) From the sine graph, $\theta = n\pi + (-1)^n \left(\dfrac{\pi}{6} \right)$

(ii) From the cosine graph, $\theta = 2n\pi \pm \left(\dfrac{\pi}{3} \right)$