

**3** (i) Solve the equation  $\sin^2 \theta = 0.25$  for  $0^\circ \leq \theta < 360^\circ$ . [3]

(ii) **In this question you must show detailed reasoning.**

Solve the equation  $\tan 3\phi = \sqrt{3}$  for  $0^\circ \leq \phi < 90^\circ$ . [3]