

4 It is given that $5 \cos^2 \theta - 4 \sin^2 \theta = 0$

4 (a) Find the possible values of $\tan \theta$, giving your answers in exact form.

[3 marks]

4 (b) Hence, or otherwise, solve the equation

$$5 \cos^2 \theta - 4 \sin^2 \theta = 0$$

giving all solutions of θ to the nearest 0.1° in the interval $0^\circ \leq \theta \leq 360^\circ$

[2 marks]