

Name:

Group 2

Result:

1. *(3 points)*
An angle θ is such that $\sin \theta = \frac{3}{5}$ and $\frac{\pi}{2} < \theta < \frac{3\pi}{2}$. Find the exact value of $\cos \theta$ and $\tan \theta$.

2. *(2 points)*
(a) Find the angle between the line $y = 3x + 2$ and the x -axis.

(b) Another line intersects the x -axis at 120° and crosses the y -axis at $y = 1$. Find the equation of this line in the form $y = mx + c$, where the coefficients are given exactly.

3.*(7 points)*

Solve the following equations for $0 \leq \theta < 2\pi$. If possible give your answers in terms of π .

(a) $\cos \theta = -\frac{\sqrt{3}}{2}$

(b) $\tan \theta = \frac{1}{4}$

(c) $\sin^2 \theta + \sin \theta = \cos^2 \theta$