

## Quiz 13

This quiz is graded out of 15 marks. No books, watches, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

**Question 1.** (3 marks) Solve the triangle  $ABC$  where  $a = 9$ ,  $b = 8$  and  $c = 10$ .

**Question 3.** (3 marks) Find the exact value of:  $\sin 225^\circ$ .

**Question 2.** (3 marks) Solve the triangle  $ABC$  where  $A = 75^\circ$ ,  $C = 50^\circ$ , and  $c = 42$ .

**Question 4.** (3 marks) Find the exact value of:  $\sec \frac{5\pi}{6}$ .

**Question 5.** (3 marks) Find the area of the sector of the circle with central angle  $\theta = 125^\circ$  and radius  $r = 12$