**Trigonometry – General Maths Practice Test**

**Name**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Question 1** (2)

Label the marked sides of the following right-angled triangle and then decide which trigonometric ratio should be used to solve for the unknown.

14

10

θ

**Question 2** (2)

Use your calculator to find, correct to four decimal places:

**(a)** tan 72°

**(b)** sin 24°48′

**Question 3** (1)

Convert 5.68° to degrees and minutes.

**Question 4** (2)

Find the value of the pronumeral in this diagram.

126

42°

*d*

**Question 5** (3)

The angle from the base of a tree to its top is 52° and it is measured 6 m away from the base. Find the height of the tree.

**Question 6** (2)

Find the value of the pronumeral in this diagram.

62°

*g*

98

**Question 7** (2)

Find the value of *x* in degrees, minutes and seconds.

**(a)** sin *x* = 0.6524

**(b)** tan *x* = 8.9477

**Question 8** (2)

Find the size of the marked angle in this right-angled triangle. Write your answer in degrees, minutes and seconds.

θ

75 cm

56 cm

**Question 9** (1)

Choose the correct answer.

The conventional bearing S35°E is the same as:

**A** 035°T

**B** 215°T

**C** 125°T

**D** 145°T

**E** 325°T

**Question 10** (3)

The angle of depression from the top of a 210 m cliff to a boat out at sea is 32°. Find the direct distance between the boat and the top of the cliff, correct to two decimal places.

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**Question 11** (1)

Choose the correct answer.

The angle of elevation of the top of a tree from a point on the ground 15 m away is 62°. The height of the tree is closest to:

**A** 13.24 m

**B** 7.04 m

**C** 16.99 m

**D** 31.95 m

**E** 28.21 m

**(c)** Find the distance between the two observers.

**(d)** Find the bearing of *A* from *B*.

**Question 12** (3)

What is the angle with the base made by the internal diagonal in a cube with a side length of 22 cm?

**Question 14** (2)

A yacht sails 72 km on a bearing of 235°T. How far south is the yacht from its starting position?

**Question 15** (2)

Two sides of a triangle have lengths 1.6 m and 2.5 m with an angle opposite the 2.5 m

length of 22°. Find the length of the third side and the value of the other two angles.

**Question 16**

A non-right angle triangle has sides a = 6, b = 7 and c = 5, then ∠A is?