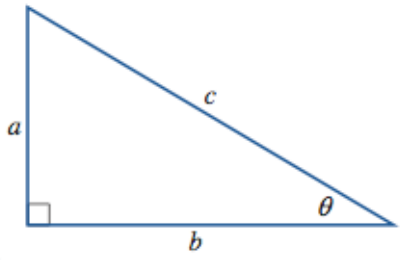
Year 9 Mathematics
Trigonometry Practice Test 4

Name_____

1 Label the sides of the triangle below hypotenuse, opposite and adjacent

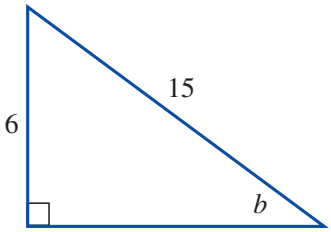
2 Label the triangle below with opposite, hypotenuse and θ

3 For this triangle, write down the expressions for the sine, cosine and tangent ratios of the given angle

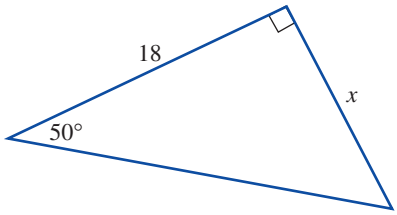


4 Write the trigonometric ratio which must be used in order to find the value of the pronumeral in each of the following triangles.

a)



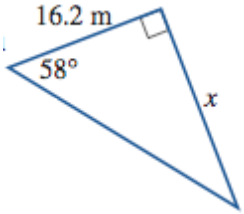
b)



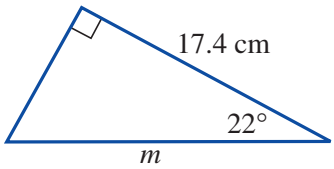
5 Evaluate each of the following giving answers correct to 4 decimal places

a) sin 56° b) cos 35° c) tan 78°

6 Find the value of x correct to 2 decimal places



7 Find the value of m correct to 2 decimal places7



8 Calculate each of the following correct to 2 decimal places

a) cos 65° 57′ b) tan 56° 45′ 30″

9 Find the size of angle θ correct to the nearest degree, given sin θ = 0.6583.

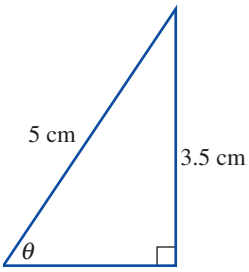
10 Find the value of θ:

a) correct to the nearest minute, given that cos θ = 0.2547

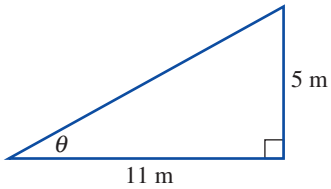
b) correct to the nearest second, given that tan θ = 2.364.

11 For each of the following find the size of the angle marked with a pronumeral, correct to the nearest degree.

a)

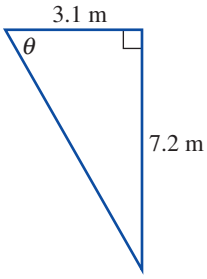


b)

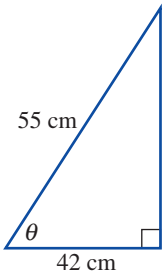


12 Find the size of angle θ to the nearest minute in each triangle below.

a)



b)



13 A ladder of length 3 m makes an angle of 32° with the wall.

a) How far is the foot of the ladder from the wall?

b) How far up the wall does the ladder reach?c What angle does the ladder make with the ground?

14 From an observer, the angle of elevation of the top of a tree is 50°. If the observer is 8 metres from the tree, find the height of the tree.

15 Change each of the following compass bearings to true bearings.

a) N32°E b) S14°W

16 Change each of the following true bearings to compass bearings. a 220°T b 130°T

a) 220°T b) 130°T

17 A boat travels a distance of 5 km from A to B in a direction of 035°T.

a) How far east of A is B?

b) How far north of A is B?

c) What is the true bearing of A from B?