

**Unit 3 Test: The Pythagorean Theorem and Basic Trigonometry**

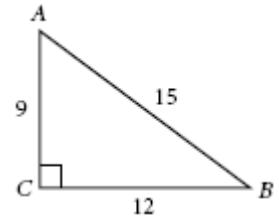
1. Given  $\triangle ABC$  at right, find each of the following. [ 8 marks ]

a.  $\sin A$

b.  $\tan A$

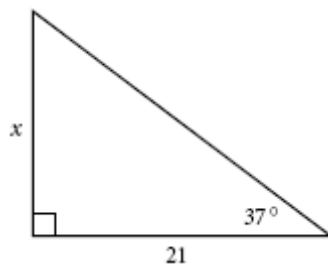
c.  $\cos B$

d.  $\tan B$



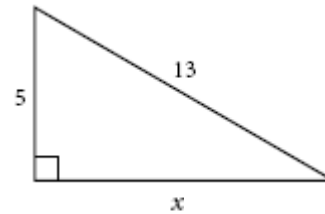
2. Find  $x$  in each triangle – round each answer to the nearest tenth. [ 16 marks ]

a.



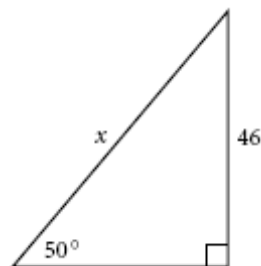
$x =$  \_\_\_\_\_

b.



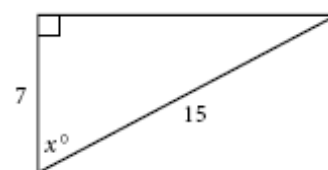
$x =$  \_\_\_\_\_

c.



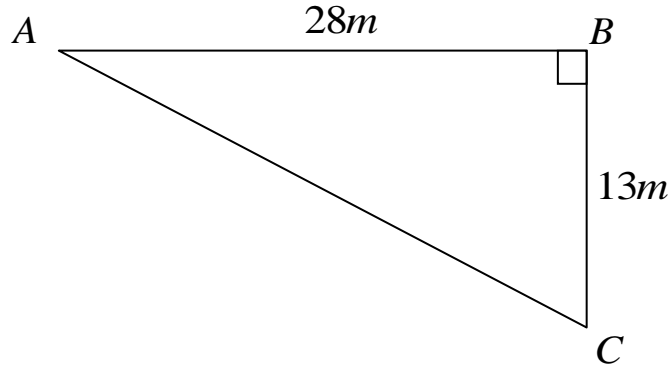
$x =$  \_\_\_\_\_

d.



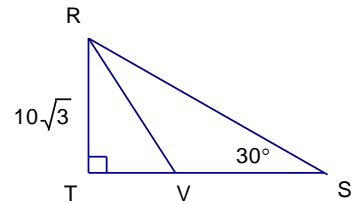
$x =$  \_\_\_\_\_

3. Solve for **ALL angles** and **sides** in the following triangle. [ 9 marks]



4.  $\triangle RST$  is shown at the right. It is a right triangle and  $RT = 10cm$ .

a. Find the length RS. [4 marks]



b. Suppose  $m\angle RVT = 60^\circ$ . Find the length VT. [4 marks]

4. A square has side length 5 cm. Find the length of the diagonal. [4 marks]

