

THE TRIANGLE AND ITS PROPERTIES

Subtopic: ANGLE SUM PROPERTY OF A TRIANGLE

Section 1

1. Mark T for True and F for False

1a. The total measure of the 3 angles of a triangle is 360° .

1b. A triangle can have all three angles as 60° .

2. Choose the correct answer.

2a. If two angles of a triangle are 30° and 80° , the third angle is ,

a) 60°

b) 70°

c) 75°

d) 150°

2b. If one of the angles of a triangle is 80° and the other two angles are equal, then the angle is ,

a) 60°

b) 45°

c) 75°

d) 50°

3. Fill in the blanks

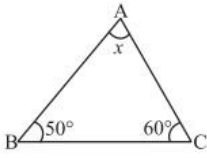
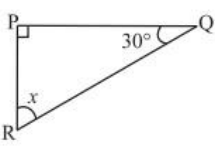
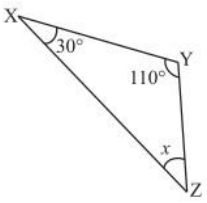
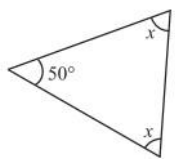
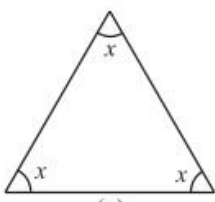
3a. In a right-angle triangle, the sum of the non-right angles is always_____.

3b. If two angles of a triangle are 52° and 44° then the third angle should be_____.

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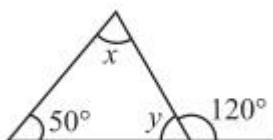
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4. Solve for x in the table below.

Figure	Find x
<p>a)</p> 	1)
<p>b)</p> 	2)
<p>c)</p> 	3
<p>d)</p> 	4)
<p>e)</p> 	5)

Section 2

5. Find the value of the unknowns x and y in the given diagram.



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6. Using exterior angle property, to prove the angle sum property.

7. Can you have a triangle with two obtuse angles? Explain.

8. If the angles of a triangle are 49° and 55° find the third angle.

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Section 3

9. Can you have a triangle with all three angles greater than 60° ? Justify.

10. The three angles of a triangle are in the ratio 1:2:1. Find all the angles of the triangle.