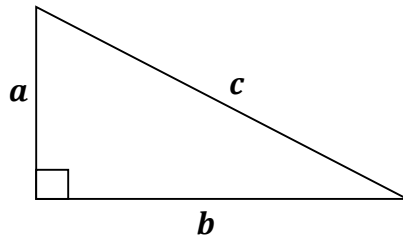


9.1 - PYTHAGOREAN THEOREM

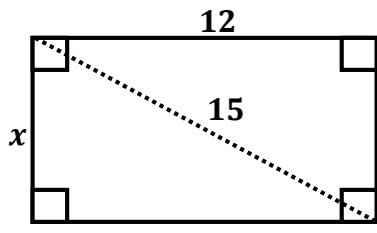
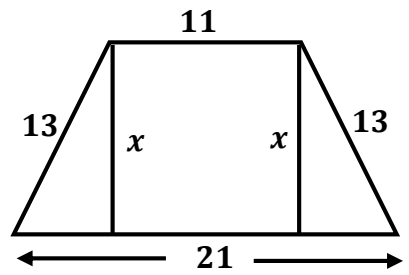
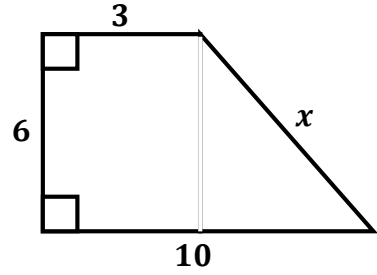
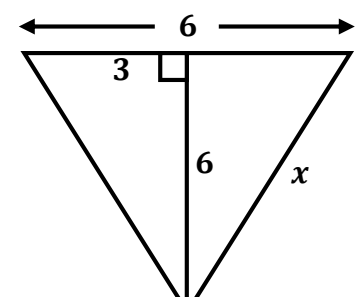


Use the Pythagorean Theorem to find the missing length. Give answers in simplest radical form.

<p>1. $c =$ _____</p>	<p>$a = 8$ and $b = 6$</p>
<p>2. $b =$ _____</p>	<p>$a = 24$ and $c = 26$</p>
<p>3. $b =$ _____</p>	<p>$a = 5$ and $c = 13$</p>
<p>4. $a =$ _____</p>	<p>$b = 11$ and $c = \sqrt{137}$</p>

Find the value of 'x' for each of the following.

<p>5. $x =$ _____</p>	
<p>6. $x =$ _____</p>	

7. $x =$ _____	
8. $x =$ _____	
9. $x =$ _____	
10. $x =$ _____	

Find the indicated length.

11. _____	A rectangle has a diagonal of 2 and a length of $\sqrt{3}$. Find its width.
12. _____	Find the length of a diagonal of a square with perimeter 16.

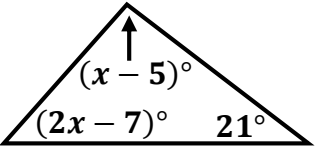
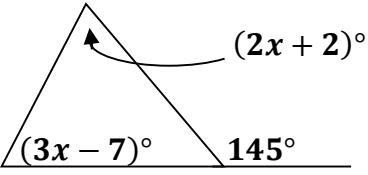
The lengths of the sides of a triangle are given. State whether each triangle is acute, right, or obtuse.

13. Classification: _____	9 ft, 20 ft, and 14 ft
14. Classification: _____	12 in, 10 in, 8 in
15. Classification: _____	16 ft, 30 ft, 34 ft
16. Classification: _____	80 mi, 78 mi, 5 mi

Determine if a triangle can be formed with the given lengths. If so, classify the triangle.

17. YES or NO Classify:	8, 9, 12
18. YES or NO Classify:	$\sqrt{5}, \sqrt{5}, \sqrt{10}$
19. YES or NO Classify:	8, 13, 20
20. YES or NO Classify:	5, 7, $\sqrt{74}$

REVIEW PROBLEMS

<p>21. $x =$ _____</p>	<p>Find the value of 'x':</p> 
<p>22. $m\angle RSU =$ _____</p>	<p>RSTU is a square. Find $m\angle RSU$.</p>
<p>23. $LM =$ _____</p>	<p>Find LM, if $L(2, 3)$ and $M(-3, -4)$.</p>
<p>24. $x =$ _____</p>	<p>Find the value of 'x'.</p> 
<p>25. $x =$ _____</p>	<p>Y is between X and Z. $XY = 7x + 1$, $YZ = 2x + 7$ and $XZ = 98$. Find the value of 'x'.</p>
<p>26. B(_____, _____)</p>	<p>If M is the midpoint of AB, $A(-3, 4)$ and $M(-1, 2)$ find the coordinates of B.</p>