

Name:

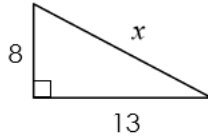
Date:

Topic:

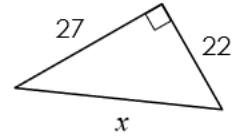
Class:

DO NOW: Directions: Find the value of x . Round each answer to the nearest tenth.

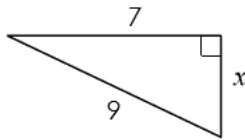
1.



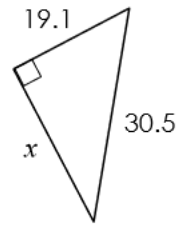
2.



3.



4.



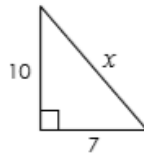
Main Ideas/Questions	Notes/Examples
PYTHAGOREAN THEOREM <i>Converse</i>	<p>Given a triangle with sides a, b, and c:</p> <ul style="list-style-type: none">• If _____, then the triangle is _____.• If _____, then the triangle is _____.• If _____, then the triangle is _____.
	Always keep "c²" on the LEFT side to avoid confusion when classifying!

<i>Examples</i>	Directions: First, determine if the three side lengths could form a triangle. (Recall from earlier, the sum of the two smaller sides must be greater than the third side). If yes, classify the triangle further as acute, right, or obtuse.	
	1. 3, 7, 9 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse	2. 20, 21, 29 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse
	3. 4, 11, 16 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse	4. 17, 17, 22 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse
	5. 18, 24, 30 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse	6. 8, 15, 23 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse
	7. 31, 35, 39 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse	8. 11, 19, 28 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse
Directions: Given the side lengths, determine whether the triangle is acute, right, obtuse, or not a triangle.		
11. 15, 16, 21 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse	12. 20, 23, 41 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse	
13. 10, 24, 26 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse	14. 6, 13, 20 <input type="checkbox"/> Not a Δ <input type="checkbox"/> Acute <input type="checkbox"/> Right <input type="checkbox"/> Obtuse	

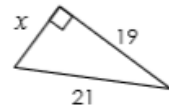
Independent Practice

Directions: Find the value of x .

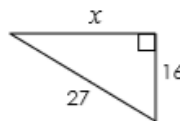
1.



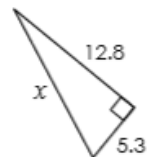
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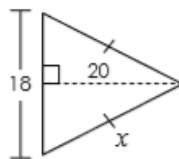
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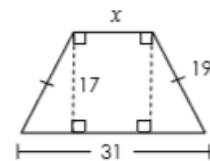
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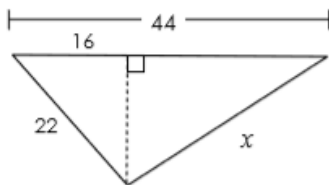
5.



6.



7.



8. Scott is using a 12-foot ramp to help load furniture into the back of a moving truck. If the back of the truck is 3.5 feet from the ground, what is the horizontal distance from where the ramp reaches the ground to the truck?

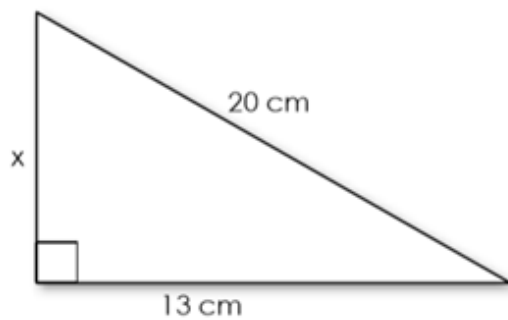
9) Find the measure of side c if $a = 5$ inches and $b = 9$ inches. Round to the nearest tenth if necessary.

10) Find the measure of side b if $a = 2$ inches and $c = 12$ inches. Round to the nearest tenth if necessary.

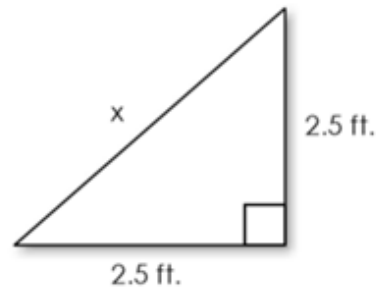
11) Find the measure of side a if $c = 10$ cm and $b = 8$ cm. Round to the nearest tenth if necessary.

12) Find the measure of side c if $a = 10$ feet and $b = 12$ feet. Round to the nearest tenth if necessary.

13) Find the missing side length. Round to the nearest tenth if necessary.



14) Find the missing side length. Round to the nearest tenth if necessary.



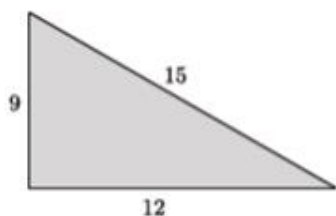
15. 3, 16, 17

- Not a Δ
- Acute
- Right
- Obtuse

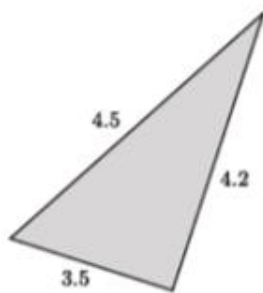
16. 24, 29, 32

- Not a Δ
- Acute
- Right
- Obtuse

17. The numbers in the diagram below indicate the units of length of each side of the triangle. Is the triangle shown below a right triangle? Show your work, and answer in a complete sentence.



18. The numbers in the diagram below indicate the units of length of each side of the triangle. Is the triangle shown below a right triangle? Show your work, and answer in a complete sentence.



- 19) The numbers in the diagram below indicate the units of length of each side of the triangle. Is the triangle shown below a right triangle? Show your work, and answer in a complete sentence.

