Name: _____ Date: _____

Unit 7 Review

For each type of question, the achievement level is indicated. Showing work is an important strategy in communicating your knowledge and ideas so please be thorough.

Learning Goal 7.1	I can identify perfect squares and evaluate square roots.

Developing
1. Tell whether each number is a perfect square using prime factorization. For those that are, evaluate.
Proficient
2. For those that are not, estimate the value of the radical to **one decimal place, without a calculator**.

a. $\sqrt{81}$	b. $\sqrt{100}$	c. $\sqrt{400}$
d. $\sqrt{169}$	e. $\sqrt{64}$	f. $\sqrt{576}$
g. $\sqrt{150}$	h. $\sqrt{16}$	i. $\sqrt{256}$
j. $\sqrt{125}$	k. $\sqrt{200}$	l. $\sqrt{180}$
m. $\sqrt{121}$	n. $\sqrt{216}$	o. $\sqrt{140}$
p. $\sqrt{49}$	q. $\sqrt{75}$	r. $\sqrt{128}$

Proficient
3. How many whole numbers have a square root between 9 and 10
4. How many whole numbers have a square root between 20 and 21

Extending
Use a number line to order these numbers from least to greatest, **without a calculator**.
5. $5,\ \sqrt{30}\ , 2, \sqrt{\frac{144}{9}}$
6. $\sqrt{55}, 7, \sqrt{\frac{9}{36}}, \sqrt{12},$

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Unit 7 Review

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Unit 7 Review

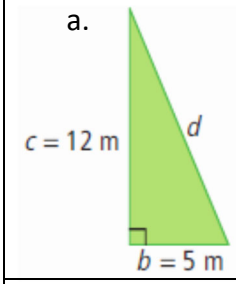
For each type of question, the achievement level is indicated. Showing work is an important strategy in communicating your knowledge and ideas so please be thorough.

Learning Goal 7.2	I can find missing sides or identify right triangles using the Pythagorean Theorem.

Developing

1. Find the missing side length of each triangle. Express your answer to the nearest tenth of a unit.

a.



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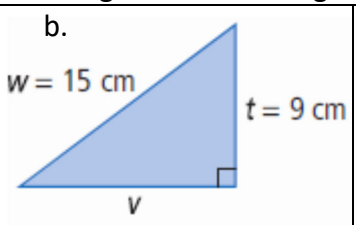

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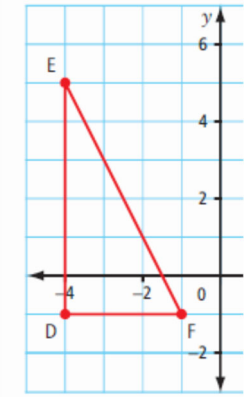

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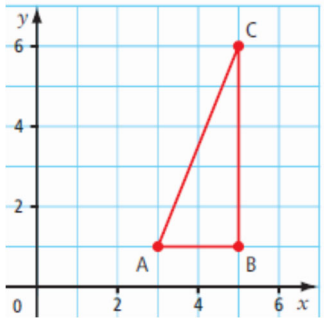

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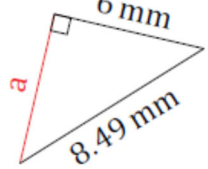

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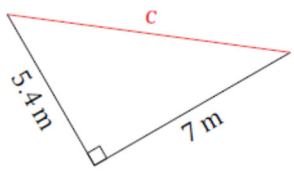

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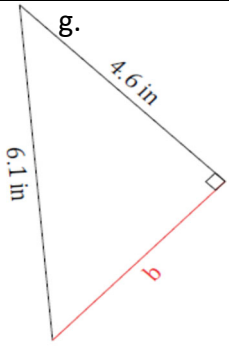

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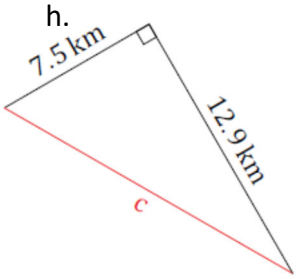

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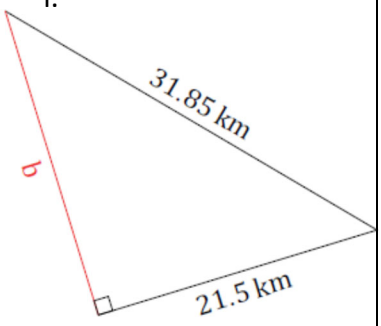

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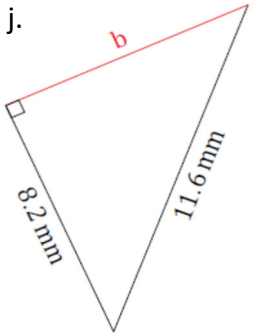

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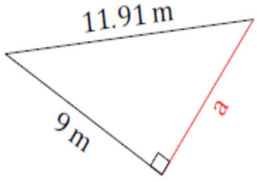

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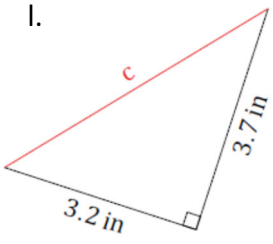

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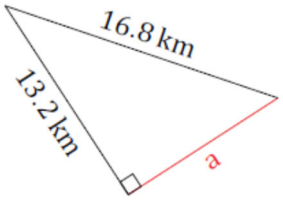
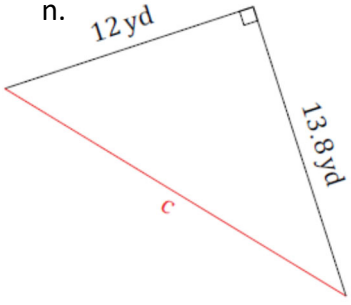


n.



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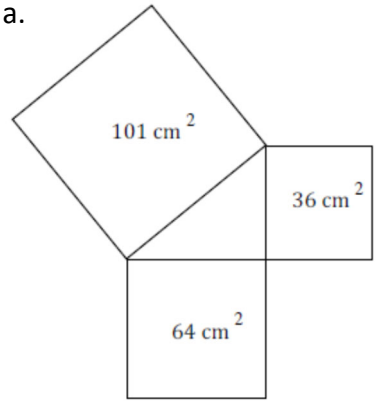
Unit 7 Review

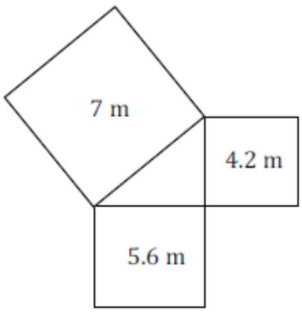
Proficient

2. Is the following a right triangle? Explain.

a.



b.



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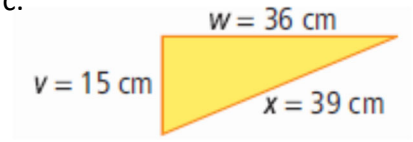
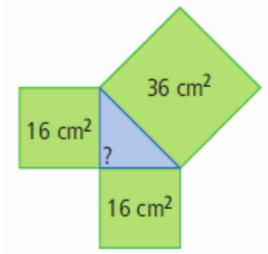


d.



Extending

3. A 5-metre-long ladder rests against a wall. If the ladder reaches a distance of 4.1 m up the wall, how far is the base of the ladder from the wall? Draw a picture and solve. Round your answer to the nearest tenth of a metre.

4. The rectangular pool at Edmonds has a length that measures 15 m and a diagonal that measures 17 m. A float lone divides the shallow end and the deep end. What is the length of the float line? Draw a picture and solve.