6.2 Exercises

Check It Out
Help with Homework
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Vocabulary and Concept Check

1. **VOCABULARY** In a right triangle, how can you tell which sides are the legs and which side is the hypotenuse?

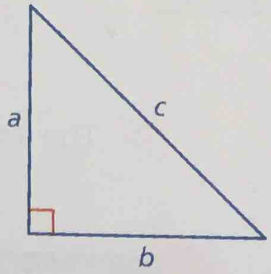
2. **DIFFERENT WORDS, SAME QUESTION** Which is different? Find "both" answers.

Which side is the hypotenuse?

Which side is the longest?

Which side is a leg?

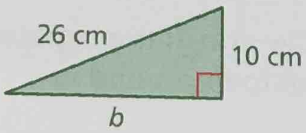
Which side is opposite the right angle?



Practice and Problem Solving

Find the missing length of the triangle.

1 2 3.



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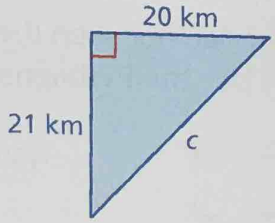

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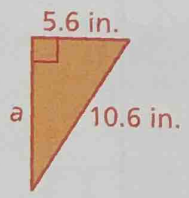

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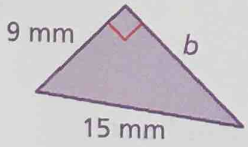

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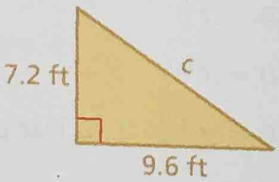

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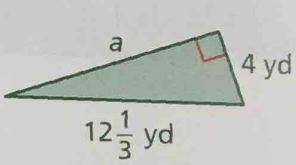
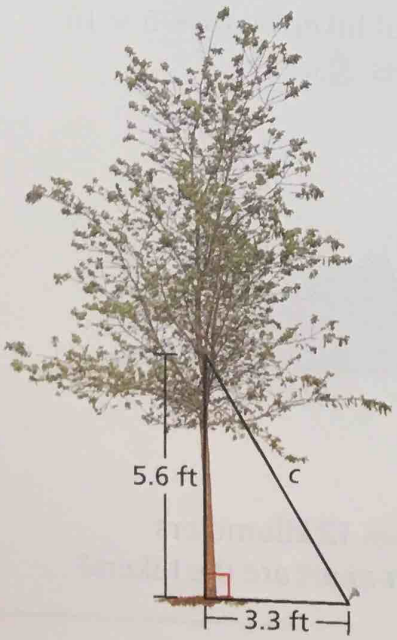
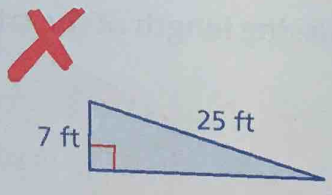




9. **ERROR ANALYSIS** Describe and correct the error in finding the missing length of the triangle.

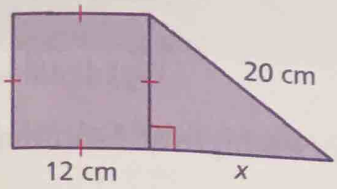


$$a^2 + b^2 = c^2$$
$$7^2 + 25^2 = c^2$$
$$674 = c^2$$
$$\sqrt{674} = c$$

10. **TREE SUPPORT** How long is the wire that supports the tree?

Find the value of x.

11.



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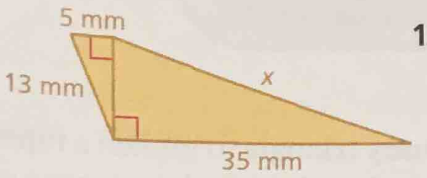

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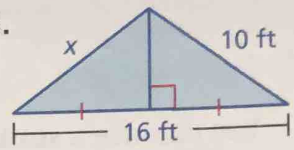
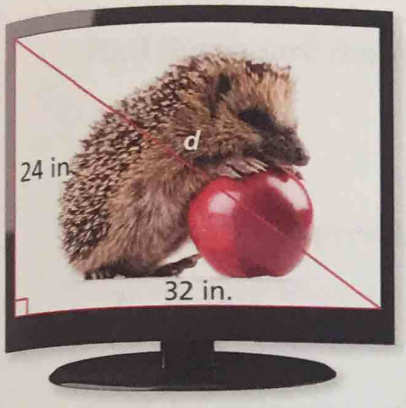
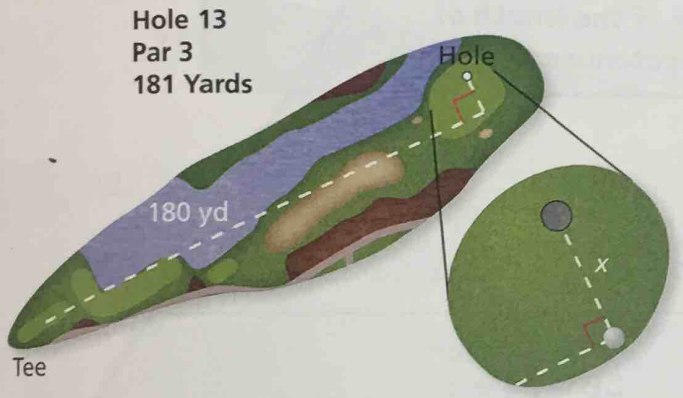




14. FLAT SCREEN Televisions are advertised by the lengths of their diagonals. A store has a sale on televisions 40 inches and larger. Is the television on sale? Explain.

15. BUTTERFLY Approximate the wingspan of the butterfly.



16. GOLF The figure shows the location of a golf ball after a tee shot. How many feet from the hole is the ball?

17. SNOWBALLS You and a friend stand back-to-back. You run 20 feet forward then 15 feet to your right. At the same time, your friend runs 16 feet forward then 12 feet to her right. She stops and hits you with a snowball.

a. Draw the situation in a coordinate plane.

b. How far does your friend throw the snowball?

18. Algebra The legs of a right triangle have lengths of 28 meters and 21 meters. The hypotenuse has a length of $5x$ meters. What is the value of x?

Fair Game Review What you learned in previous grades & lessons

Find the square root(s). *(Section 6.1)*

19. $\pm\sqrt{36}$ **20.** $-\sqrt{121}$ **21.** $\sqrt{169}$ **22.** $-\sqrt{225}$

23. MULTIPLE CHOICE Which type of triangle can have an obtuse angle? *(Section 5.2)*

(A) equiangular (B) right (C) isosceles (D) equilateral