Why Do Adults Complain So Much?

Find the length of the hypotenuse of each right triangle below. Find your answer in the answer column. Write the letter of the answer in the box containing the number of the exercise.

1. \( \sqrt{5^2 + 4^2} = \sqrt{41} \approx 6.4 \)  
   \( \text{Answer: E} \)

2. \( \sqrt{7^2 + 9^2} = \sqrt{130} \approx 11.4 \)  
   \( \text{Answer: O} \)

3. \( \sqrt{10^2 + \sqrt{20^2}} = \sqrt{100 + 200} = \sqrt{300} \approx 17.3 \)  
   \( \text{Answer: U} \)

4. \( \sqrt{5^2 + 8^2} = \sqrt{89} \approx 9.4 \)  
   \( \text{Answer: P} \)

5. \( \sqrt{15^2 + 11^2} = \sqrt{346} \approx 18.6 \)  
   \( \text{Answer: S} \)

6. \( \sqrt{7^2 + 6^2} = \sqrt{85} \approx 9.2 \)  
   \( \text{Answer: E} \)

7. \( \sqrt{15^2 + 11^2} = \sqrt{346} \approx 18.6 \)  
   \( \text{Answer: S} \)

8. \( \sqrt{8^2 + 10^2} = \sqrt{164} \approx 12.8 \)  
   \( \text{Answer: Q} \)

9. \( \sqrt{20^2 + 10^2} = \sqrt{500} \approx 22.4 \)  
   \( \text{Answer: T} \)

10. \( \sqrt{7^2 + 4^2} = \sqrt{65} \approx 8.1 \)  
    \( \text{Answer: G} \)

11. \( \sqrt{12^2 + 5^2} = \sqrt{169} \approx 13 \)  
    \( \text{Answer: Y} \)

12. \( \sqrt{16^2 + 18^2} = \sqrt{580} \approx 24.1 \)  
    \( \text{Answer: N} \)

13. \( \sqrt{13^2 + 10^2} = \sqrt{369} \approx 19.2 \)  
    \( \text{Answer: R} \)

14. \( \sqrt{8^2 + 15^2} = \sqrt{289} \approx 17 \)  
    \( \text{Answer: U} \)

15. \( \sqrt{30^2 + 40^2} = \sqrt{2500} = 50 \)  
    \( \text{Answer: R} \)

MIDDLE SCHOOL MATH WITH PIZZAZZ! BOOK D  
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TOPIC 6-b: The Rule of Pythagoras:  
Finding the Length of the Hypotenuse

D-73
How Would You Describe a Dead Skunk?

Round each answer to the nearest tenth (if necessary). Find each answer at the bottom of the page and cross out the letter above it. When you finish, the answer to the title question will remain.

1. Find the length of the hypotenuse of each right triangle.

A
\[
\text{12.2 cm} \approx 3.5\text{ cm}
\]

B
\[
\sqrt{133} \approx 11.5\text{ m}
\]

C
\[
\text{12 in.}
\]

2. A rectangle is 6 m wide and 11 m long. How long is the diagonal of the rectangle?

\[
\sqrt{129} \approx 11.4\text{ m}
\]

3. A television screen may be described in terms of the diagonal measure of its screen. If a TV screen is 20 in. wide and 15 in. high, what is the length of its diagonal?

\[
\sqrt{20^2 + 15^2} \approx 25\text{ in.}
\]

4. A quarterback at point A throws the football to a receiver who catches it at point B. How long was the pass?

\[
\sqrt{21^2} \approx 28.2\text{ yd}
\]

5. A rope is stretched from the top of a 7-foot tent pole to a point on the ground 12 ft from the base of the pole. How long is the rope?

\[
\sqrt{13^2} \approx 13.9\text{ ft}
\]

6. Kristin and her family left their campsite for a hike. They hiked 5 mi west and then 2 mi north. How far were they from the campsite?

\[
\sqrt{5^2 + 2^2} \approx 5.4\text{ mi}
\]

7. The window of a burning building is 40 feet above the ground. The base of a ladder is placed 9 feet from the building. How long must the ladder be to reach the window?

\[
\sqrt{40^2 + 9^2} \approx 41\text{ ft}
\]

8. The bases on a baseball diamond are 90 feet apart. How far is it from home plate to second base?

\[
\sqrt{90^2 - 24^2} \approx 43.3\text{ ft}
\]

9. The lawn in front of Pythagoras Jr. High is in the shape of a rectangle 24 m long and 10 m wide. How many meters shorter is your walk if you walk diagonally across the lawn rather than along two sides of it?

\[
\sqrt{24^2 + 10^2} \approx 25.4\text{ m}
\]

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