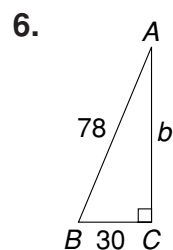
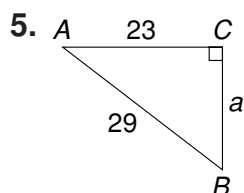
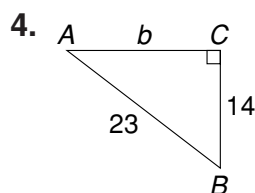
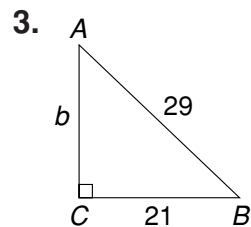
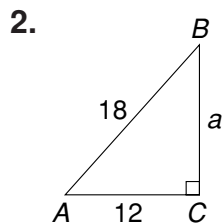
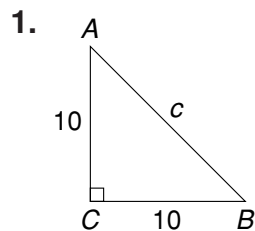


LESSON
4-9 **Practice B**
The Pythagorean Theorem

Use the Pythagorean Theorem to find each missing measure to the nearest tenth.



Tell whether the given side lengths form a right triangle.

7. 12, 35, 37

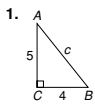
8. 9, 11, 14

9. 20, 21, 29

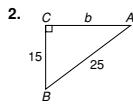
10. A glider flies 8 miles south from the airport and then 15 miles east. Then it flies in a straight line back to the airport. What was the distance of the glider's last leg back to the airport?

LESSON Practice A
4-9 The Pythagorean Theorem

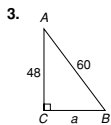
Use the Pythagorean Theorem to find each missing measure. Round the answers to the nearest tenth.



6.4



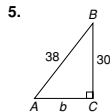
20



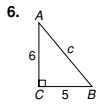
36



11.3



23.3



7.8

Tell whether the given side lengths form a right triangle.

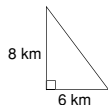
7. 8, 15, 17
yes

8. 10, 24, 26
yes

9. 6, 9, 11
no

10. Jan and her brother Mel go to different schools. Jan goes 6 kilometers east from home. Mel goes 8 kilometers north. How many kilometers apart are their schools?

10 km



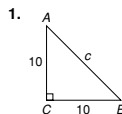
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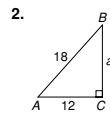
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LESSON Practice B
4-9 The Pythagorean Theorem

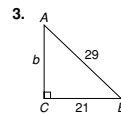
Use the Pythagorean Theorem to find each missing measure to the nearest tenth.



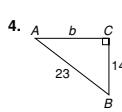
14.1



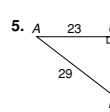
13.4



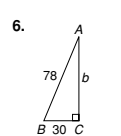
20



18.2



17.7



72

Tell whether the given side lengths form a right triangle.

7. 12, 35, 37
yes

8. 9, 11, 14
no

9. 20, 21, 29
yes

10. A glider flies 8 miles south from the airport and then 15 miles east. Then it flies in a straight line back to the airport. What was the distance of the glider's last leg back to the airport?

17 mi

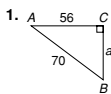
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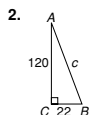
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LESSON Practice C
4-9 The Pythagorean Theorem

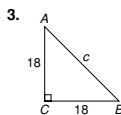
Use the Pythagorean Theorem to find each missing measure to the nearest tenth.



42



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25.5

4. $a = 8$, $b = 15$, $c = ?$
17

5. $a = 0.5$, $b = ?$, $c = 1.3$
1.2

6. $a = ?$, $b = 18$, $c = 28$
21.4

7. $a = 21$, $b = ?$, $c = 46$
40.9

8. $a = ?$, $b = 38$, $c = 45$
24.1

9. $a = 30$, $b = ?$, $c = 50$
40

10. $a = 30$, $b = 72$, $c = ?$
78

11. $a = 40$, $b = ?$, $c = 65$
51.2

12. $a = 65$, $b = ?$, $c = 97$
72

Tell whether the given side lengths form a right triangle.

13. 2.1, 2.8, 3.5
yes

14. 12, 15, 20
no

15. 30, 70, 78
no

16. 18, 24, 30
yes

17. Use the Pythagorean Theorem to find the missing side of the triangle if the hypotenuse is 68 and the other side is 32.

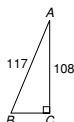
60

18. Use the Pythagorean Theorem to find the base of this triangle.

$b = 45$

19. A 20-ft ladder is leaning against a house. The bottom of the ladder is 3 ft from the house. To the nearest tenth of a foot, about how high does the top of the ladder reach?

19.8



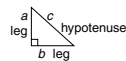
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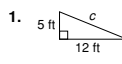
LESSON Review for Mastery
4-9 The Pythagorean Theorem

You can find the length of a side by using the Pythagorean Theorem.

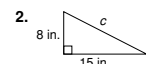


$$\begin{aligned} a^2 + b^2 &= c^2 \\ 3^2 + 4^2 &= c^2 \\ 9 + 16 &= c^2 \\ 25 &= c^2 \\ c &= 5 \text{ in.} \end{aligned}$$

Complete to find the length of each hypotenuse.



$$\begin{aligned} a^2 + b^2 &= c^2 \\ 5^2 + 12^2 &= c^2 \\ 25 + 144 &= c^2 \\ 169 &= c^2 \\ c &= 13 \text{ ft} \end{aligned}$$

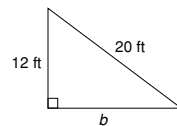


$$\begin{aligned} a^2 + b^2 &= c^2 \\ 8^2 + 15^2 &= c^2 \\ 64 + 225 &= c^2 \\ 289 &= c^2 \\ c &= 17 \text{ in.} \end{aligned}$$

Complete to find the length of each leg.

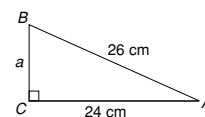
3. $a^2 + b^2 = c^2$

$$\begin{aligned} 12^2 + b^2 &= 20^2 \\ 144 + b^2 &= 400 \\ - 144 & - 144 \\ b^2 &= 256 \\ b &= 16 \text{ in.} \end{aligned}$$



4. $a^2 + 24^2 = 26^2$

$$\begin{aligned} a^2 + 576 &= 676 \\ - 576 & - 576 \\ a^2 &= 100 \\ a &= 10 \text{ cm} \end{aligned}$$



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