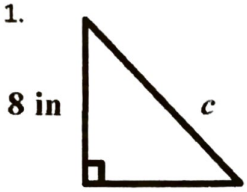
Name: Period: Score: / = %=

HW 7-5

Int 1 — Pythagorean Theorem DAY 2 — Unit 7

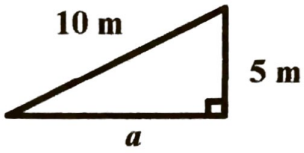
Write an equation you could use to find the length of the missing side of each right triangle. Then find the missing length. Write your answers as simplified radicals. Label your units.

1.

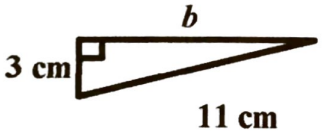


$c = \sqrt{113}$ in

2.

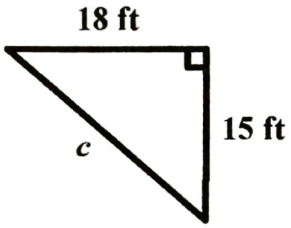


3.

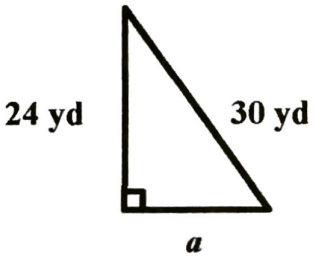


$b = 4\sqrt{7}$ cm

4.

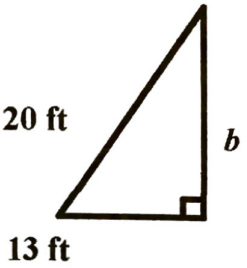


5.



$a = 18\sqrt{4}$ yd

6.



7. $a = 1$m, $b = 3$m

$c = \sqrt{10}$ m

8. $a = 2$in, $c = 5$in

9. $b = 4$ft, $c = 7$ft

$a = \sqrt{33}$ ft

10. $a = 4$km, $b = 9$km

11. $a = 10$yd, $c = 18$yd

$b = 4\sqrt{14}$ yd

12. $b = 18$ft, $c = 20$ft

Write an equation you could use to find the length of the missing side of each right triangle. Then find the missing length. Write your answers as a decimal rounded to the nearest tenth.

13. $a = 5\text{yd}$, $b = 11\text{yd}$

$c = 12.1\text{yd}$

14. $a = 12\text{cm}$, $c = 16\text{cm}$

15. $b = 22\text{m}$, $c = 25\text{m}$

$a = 11.9\text{m}$

16. $a = 21\frac{1}{2}\text{ft}$, $b = 72\frac{1}{4}\text{ft}$

17. $a = 36.2\text{yd}$, $c = 60.3\text{yd}$

$b = 48.2\text{yd}$

18. $b = 25.7\text{mm}$, $c = 65\frac{1}{2}\text{mm}$

Determine whether each triangle with sides of given lengths is a right triangle. Justify your answer with an equation.

19. 10yd, 15yd, 20yd

NO

$10^2 + 15^2 \neq 20^2$

20. 21ft, 28ft, 35ft

21. 7yd, 14yd, 16yd

NO

$7^2 + 14^2 \neq 16^2$

22. 40m, 42m, 58m

23. 24in, 32in, 38in

NO. $24^2 + 32^2 \neq 38^2$

24. 15mm, 18mm, 24mm