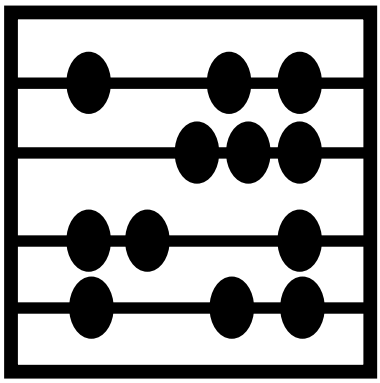
Pythagorean Triples



Geometry

Student Worksheet

Practice you can't find anywhere else

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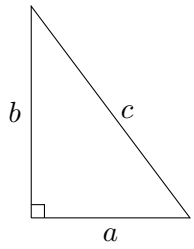
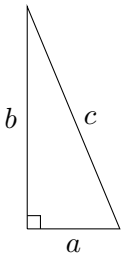
Solve the right triangle for the indicated side.

Type 1: Both legs are given

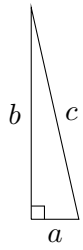
1. If $a = 3$ and $b = 4$, solve for c.



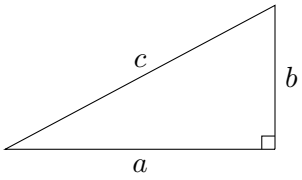
2. If $a = 5$ and $b = 12$, solve for c.



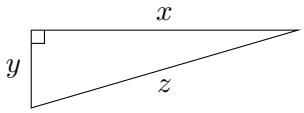
3. If $a = 9$ and $b = 40$, solve for c.



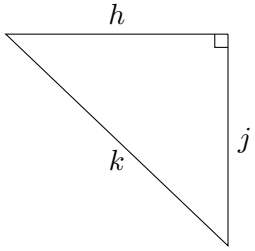
4. If $a = 15$ and $b = 8$, solve for c.



5. If $x = 24$ and $y = 7$, solve for z.



6. If $h = 21$ and $j = 20$, solve for k.



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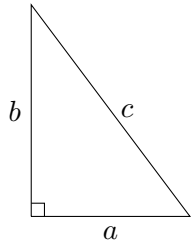
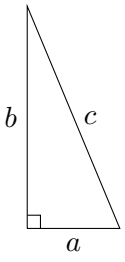
7. If $a = 6$ and $b = 8$, solve for c.



8. If $a = 10$ and $b = 24$, solve for c.



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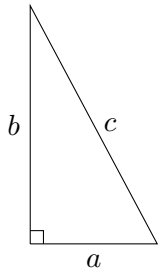
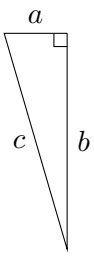
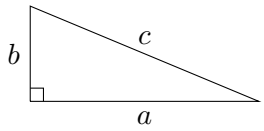
9. If $a = 24$ and $b = 45$, solve for c.



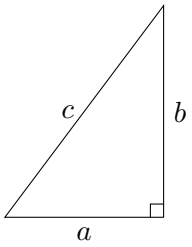
10. If $a = 14$ and $b = 48$, solve for c.



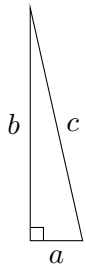
11. If $a = 36$ and $b = 15$, solve for c.



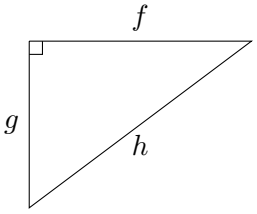
12. If $a = 12$ and $b = 16$, solve for c.



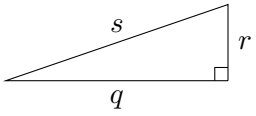
13. If $a = 45$ and $b = 200$, solve for c.



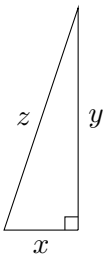
14. If $f = 28$ and $g = 21$, solve for h.



15. If $q = 105$ and $r = 36$, solve for s.



16. If $x = 40$ and $y = 120$, solve for z.



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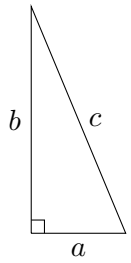
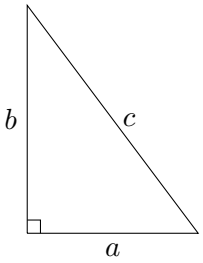
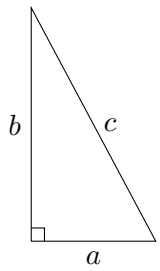
17. If $a = \frac{5}{7}$ and $b = \frac{12}{7}$, solve for c.



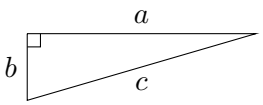
18. If $a = \frac{3}{13}$ and $b = \frac{4}{13}$, solve for c.



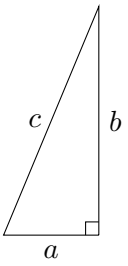
19. If $a = \frac{8}{17}$ and $b = \frac{15}{17}$, solve for c.



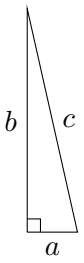
20. If $a = \frac{24}{25}$ and $b = \frac{7}{25}$, solve for c.



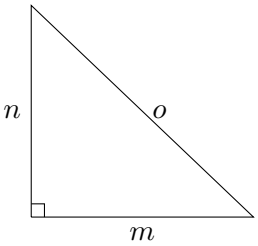
21. If $a = 1$ and $b = \frac{12}{5}$, solve for c.



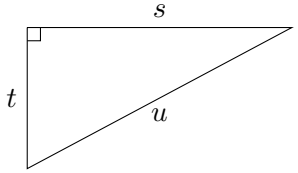
22. If $a = 1$ and $b = \frac{40}{9}$, solve for c.



23. If $m = \frac{21}{2}$ and $n = 10$, solve for o.



24. If $s = 5$ and $t = \frac{8}{3}$, solve for u.



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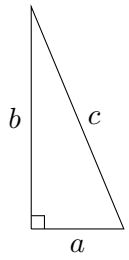
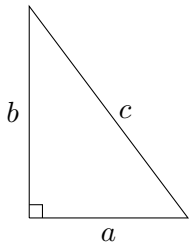
Type 2: Hypotenuse and a leg are given

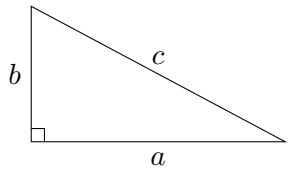
25. If $a = 5$ and $c = 13$, solve for b.



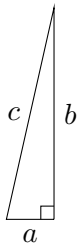
26. If $b = 4$ and $c = 5$, solve for a.



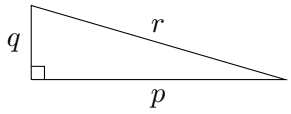
27. If $a = 15$ and $c = 17$, solve for b.



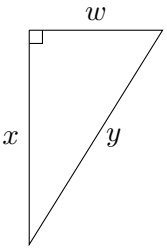
28. If $a = 9$ and $c = 41$, solve for b.



29. If $q = 7$ and $r = 25$, solve for p.



30. If $w = 28$ and $y = 53$, solve for x.



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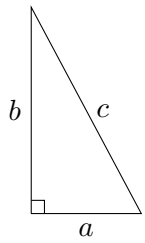
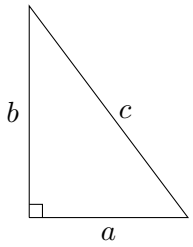
31. If $b = 30$ and $c = 34$, solve for a.



32. If $b = 8$ and $c = 10$, solve for a.



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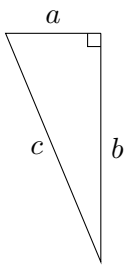
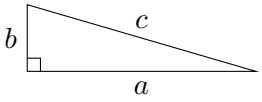
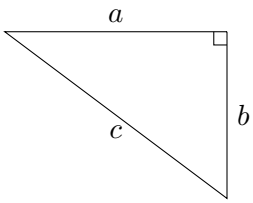
33. If $a = 15$ and $c = 39$, solve for b.



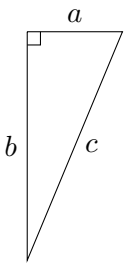
34. If $a = 48$ and $c = 50$, solve for b.



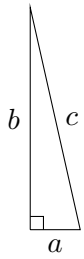
35. If $a = 12$ and $c = 15$, solve for b.



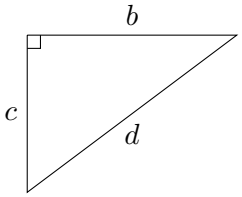
36. If $b = 48$ and $c = 52$, solve for a.



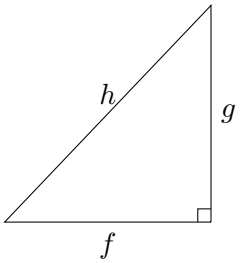
37. If $b = 200$ and $c = 205$, solve for a.



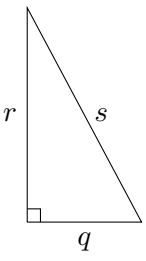
38. If $b = 36$ and $d = 45$, solve for c.



39. If $g = 63$ and $h = 87$, solve for f.



40. If $r = 90$ and $s = 102$, solve for q.



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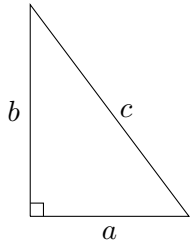
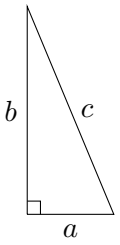
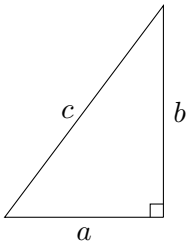
41. If $a = \dfrac{3}{7}$ and $c = \dfrac{5}{7}$, solve for b.



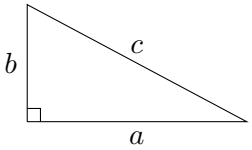
42. If $a = \dfrac{5}{11}$ and $c = \dfrac{13}{11}$, solve for b.



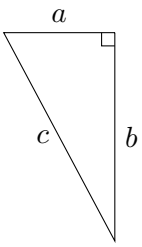
43. If $b = \dfrac{4}{5}$ and $c = 1$, solve for a.



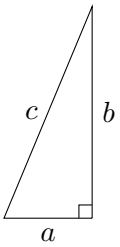
44. If $b = \dfrac{8}{17}$ and $c = 1$, solve for a.



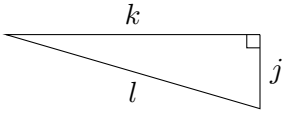
45. If $a = 1$ and $c = \dfrac{17}{8}$, solve for b.



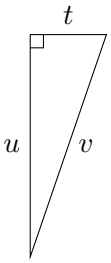
46. If $a = \dfrac{5}{12}$ and $c = \dfrac{13}{12}$, solve for b.



47. If $j = 6$ and $l = \dfrac{25}{4}$, solve for k.



48. If $u = 7$ and $v = \dfrac{37}{5}$, solve for t.



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Type 1: Both legs are given

1. $c = 5$
2. $c = 13$
3. $c = 41$
4. $c = 17$
5. $z = 25$
6. $k = 29$
7. $c = 10$
8. $c = 26$
9. $c = 51$
10. $c = 50$
11. $c = 39$
12. $c = 20$
13. $c = 205$
14. $h = 35$
15. $s = 111$
16. $z = 126$
17. $c = \frac{13}{7}$
18. $c = \frac{5}{13}$
19. $c = 1$
20. $c = 1$

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21. $c = \frac{13}{5}$

22. $c = \frac{41}{9}$

23. $o = \frac{29}{2}$

24. $u = \frac{17}{3}$

Type 2: Hypotenuse and a leg are given

25. $b = 12$

26. $a = 3$

27. $b = 8$

28. $b = 40$

29. $p = 24$

30. $x = 45$

31. $a = 16$

32. $a = 6$

33. $b = 36$

34. $b = 14$

35. $b = 9$

36. $a = 20$

37. $a = 45$

38. $c = 27$

39. $f = 60$

40. $q = 48$

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41. $b = \frac{4}{7}$

42. $b = \frac{12}{11}$

43. $a = \frac{3}{5}$

44. $a = \frac{15}{17}$

45. $b = \frac{15}{8}$

46. $b = 1$

47. $k = \frac{7}{4}$

48. $t = \frac{12}{5}$

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