Is it a right triangle?

Square the two shorter sides and add. A right triangle only if the sum is the longest side squared.

Name _____ Date _____

1. 6 ft, 8 ft, 10 ft yes no
2. 20 ft, 21 ft, 28 ft yes no
3. 16 in, 19 in, 29 in yes no
4. 39 cm, 52 cm, 66 cm yes no
5. 16 ft, 65 ft, 63 ft yes no
6. 9 cm, 9 cm, 15 cm yes no
7. 16 in, 30 in, 34 in yes no
8. 8 m, 15 m, 17 m yes no
9. 33 cm, 56 cm, 65 cm yes no
10. 3 ft, 5 ft, 4 ft yes no
11. 12 ft, 16 ft, 19 ft yes no
12. 3 in, 4 in, 5 in yes no
13. 53 m, 28 m, 45 m yes no
14. 11 ft, 21 ft, 30 ft yes no
15. 17 ft, 22 ft, 36 ft yes no
16. 5 in, 12 in, 13 in yes no
17. 9 cm, 40 cm, 42 cm yes no
18. 25 m, 60 m, 65 m yes no
19. 33 in, 44 in, 55 in yes no
20. 28 in, 53 in, 45 in yes no

Is it a right triangle: answer key

The two shorter sides squared and added, against the longest side squared.

1. $6^2 + 8^2 = 36 + 64 = 100$
   $10^2 = 100$
   $100 = 100$: yes, a right triangle

2. $20^2 + 21^2 = 400 + 441 = 841$
   $28^2 = 784$
   $841 \neq 784$: no, not a right triangle

3. $16^2 + 19^2 = 256 + 361 = 617$
   $29^2 = 841$
   $617 \neq 841$: no, not a right triangle

4. $39^2 + 52^2 = 1521 + 2704 = 4225$
   $66^2 = 4356$
   $4225 \neq 4356$: no, not a right triangle

5. $16^2 + 63^2 = 256 + 3969 = 4225$
   $65^2 = 4225$
   $4225 = 4225$: yes, a right triangle

6. $9^2 + 9^2 = 81 + 81 = 162$
   $15^2 = 225$
   $162 \neq 225$: no, not a right triangle

7. $16^2 + 30^2 = 256 + 900 = 1156$
   $34^2 = 1156$
   $1156 = 1156$: yes, a right triangle

8. $8^2 + 15^2 = 64 + 225 = 289$
   $17^2 = 289$
   $289 = 289$: yes, a right triangle

9. $33^2 + 56^2 = 1089 + 3136 = 4225$
   $65^2 = 4225$
   $4225 = 4225$: yes, a right triangle

10. $3^2 + 4^2 = 9 + 16 = 25$
    $5^2 = 25$
    $25 = 25$: yes, a right triangle

11. $12^2 + 16^2 = 144 + 256 = 400$
    $19^2 = 361$
    $400 \neq 361$: no, not a right triangle

12. $3^2 + 4^2 = 9 + 16 = 25$
    $5^2 = 25$
    $25 = 25$: yes, a right triangle

13. $28^2 + 45^2 = 784 + 2025 = 2809$
    $53^2 = 2809$
    $2809 = 2809$: yes, a right triangle

14. $11^2 + 21^2 = 121 + 441 = 562$
    $30^2 = 900$
    $562 \neq 900$: no, not a right triangle

15. $17^2 + 22^2 = 289 + 484 = 773$
    $36^2 = 1296$
    $773 \neq 1296$: no, not a right triangle

16. $5^2 + 12^2 = 25 + 144 = 169$
    $13^2 = 169$
    $169 = 169$: yes, a right triangle

17. $9^2 + 40^2 = 81 + 1600 = 1681$
    $42^2 = 1764$
    $1681 \neq 1764$: no, not a right triangle

18. $25^2 + 60^2 = 625 + 3600 = 4225$
    $65^2 = 4225$
    $4225 = 4225$: yes, a right triangle

19. $33^2 + 44^2 = 1089 + 1936 = 3025$
    $55^2 = 3025$
    $3025 = 3025$: yes, a right triangle

20. $28^2 + 45^2 = 784 + 2025 = 2809$
    $53^2 = 2809$
    $2809 = 2809$: yes, a right triangle