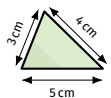
Answers — compare the square of the longest side with the sum of the squares of the other two sides.

1. Is this triangle right-angled?



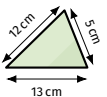
Solution

$3^2+4^2 = 9+16 = 25$

$5^2 = 25$, equal.

Yes.

2. Is this triangle right-angled?



Solution

$5^2 + 12^2 =$

$25 + 144 = 169$

$13^2 = 169$, equal.

Yes.

3. Is a triangle with side lengths $6, 8, 10$ right-angled?

Solution

$6^2 + 8^2 = 36 + 64 = 100$

$10^2 = 100$, equal.

Yes.

4. Is a triangle with side lengths $9, 12, 16$ right-angled?

Solution

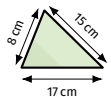
$9^2 + 12^2 = 81 + 144 = 225$

$16^2 = 256 \neq 225$.

No.

Answers — compare the square of the longest side with the sum of the squares of the other two sides.

5. Is this triangle right-angled?



Solution

$8^2 + 15^2 =$
$64 + 225 = 289$
$17^2 = 289$, equal.

Yes.

6. Is a triangle with side lengths $3, 4, 6$ right-angled?

Solution

$3^2 + 4^2 = 9 + 16 = 25$
$6^2 = 36 \neq 25.$

No.

7. Is a triangle with side lengths $7, 24, 25$ right-angled?

Solution

$7^2 + 24^2 = 49 + 576 = 625$
$25^2 = 625$, equal.

Yes.

8. Is a triangle with side lengths $5, 5, 7$ right-angled?

Solution

$5^2 + 5^2 = 25 + 25 = 50$
$7^2 = 49 \neq 50.$

No.