Geometry Practice G.SRT.C.8: Pythagorean Theorem 2 www.jmap.org

- 1. Is a triangle with sides of length 6 cm, 8 cm, and 10 cm a right triangle?
- 2. Is a triangle with sides of length 10 cm, 24 cm, and 27 cm a right triangle?
- 3. Is a triangle with sides of length 5 cm, 12 cm, and 13 cm a right triangle?
- 4. Use a calculator to find out whether a triangle with sides of lengths 8, 10, and 15 is a right triangle.
- 5. Which set of three numbers represent the lengths of the sides of a right triangle?

[A] 4, 5, 9	[B] 6, 8, 10	[C] 8, 9, 10
[D] 9, 16, 25		[E] 6, 7, 8

- 6. Which set of side lengths cannot form a right triangle?
 - [A] 10 mm, 24 mm, 26 mm

[B]
$$\frac{5}{2}$$
 mm, 6 mm, $\frac{13}{2}$ mm

- [C] 6 mm, 12 mm, 13 mm
- [D] 5 mm, 12 mm, 13 mm

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- 7. Which set of side lengths cannot form a right triangle?
 - [A] 12 mm, 16 mm, 20 mm
 - [B] 24 mm, 32 mm, 40 mm
 - [C] 6 mm, 8 mm, 10 mm
 - [D] 13 mm, 16 mm, 20 mm
- 8. Which set of side lengths cannot form a right triangle?
 - [A] 18 mm, 24 mm, 30 mm
 - [B] $\frac{9}{2}$ mm, 6 mm, $\frac{15}{2}$ mm
 - [C] 10 mm, 12 mm, 15 mm
 - [D] 9 mm, 12 mm, 15 mm
- 9. Which set of the three numbers do *not* represent the lengths of the sides of a right triangle?

[A] 9, 12, 15	[B] 12, 16, 20
[C] 7, 24, 25	[D] 7, 7, 14
[E] 5, 12, 13	

10. Which of the following could NOT be the lengths of the sides of a right triangle?

[A] 5 in., 12 in., 14 in.

- [B] 1.5 m, 2 m, 2.5 m
- [C] 9 ft, 12 ft, 15 ft
- [D] 4 cm, 7.5 cm, 8.5 cm

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- [1] <u>yes</u>
- [2] <u>no</u>
- [3] yes
- [4] It is not a right triangle since $8^2 + 10^2 \neq 15^2$.
- [5] B
- [6] C
- [7] <u>D</u>
- [8] <u>C</u>
- [9] <u>D</u>
- [10] <u>A</u>