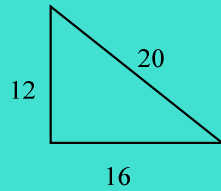


Ch 4.5 Pythagorean Converse

If the hypotenuse² = leg² + leg², then the triangle is a right triangle.

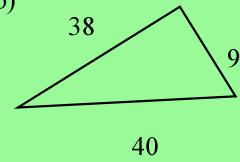
Ex 1) Determine if the following is a right triangle:

Ex1a)



Dec 2-9:32 AM

Ex1b)



Dec 2-9:36 AM

Classifying triangles given the side lengths.

- **Acute** : $\text{hyp}^2 < \text{leg}^2 + \text{leg}^2$
- **Right**: $\text{hyp}^2 = \text{leg}^2 + \text{leg}^2$
- **Obtuse** : $\text{hyp}^2 > \text{leg}^2 + \text{leg}^2$

Ex2a) 9, 7, 11

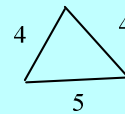
Ex2b) 10, 24, 30

Ex2c) 4, 5, $\sqrt{35}$

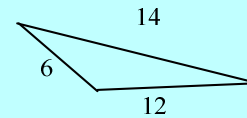
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Ex3) Show that the triangles are acute or obtuse.

Ex3a) acute:



Ex3b) obtuse:



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1. Determine what type a triangle it would be with sides: 2, 10, 11

- A right
- B acute
- C obtuse
- D equiangular

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Dec 3-9:09 AM

2. Determine what type of triangle it would be with sides: 8, 5, 7:

- A right
- B acute
- C obtuse
- D equiangular

Dec 3-9:12 AM

3. Determine what type of triangle it would be with sides 5, 5, 5:

- A right
- B acute
- C obtuse
- D equiangular

Dec 3-9:13 AM

4. What type of triangle would it be with sides 6, 8, and 10:

- A right
- B acute
- C obtuse
- D equiangular

Dec 3-9:13 AM