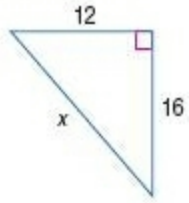


## 8-2 The Pythagorean Theorem and Its Converse

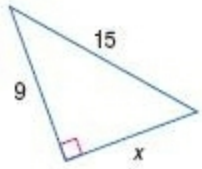
Find  $x$ .



9.

ANSWER:

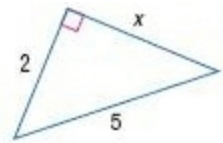
20



10.

ANSWER:

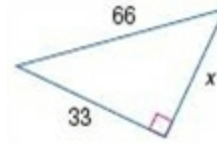
12



11.

ANSWER:

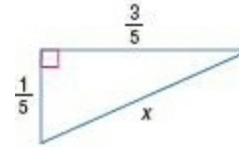
$\sqrt{21} \approx 4.6$



12.

ANSWER:

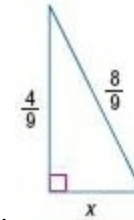
$33\sqrt{3} \approx 57.2$



13.

ANSWER:

$\frac{\sqrt{10}}{5} \approx 0.6$



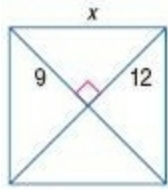
14.

ANSWER:

$\frac{4\sqrt{3}}{9} \approx 0.8$

## 8-2 The Pythagorean Theorem and Its Converse

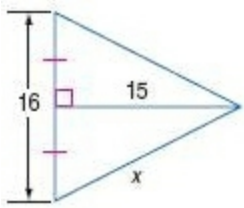
Find  $x$ .



27.

ANSWER:

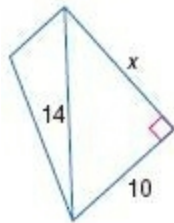
15



28.

ANSWER:

17



29.

ANSWER:

$4\sqrt{6} \approx 9.8$

**COORDINATE GEOMETRY** Determine whether  $\triangle XYZ$  is an *acute*, *right*, or *obtuse* triangle for the given vertices. Explain.

30.  $X(-3, -2)$ ,  $Y(-1, 0)$ ,  $Z(0, -1)$

ANSWER:

right;  $XY = \sqrt{8}$ ,  $YZ = \sqrt{2}$ ,  $XZ = \sqrt{10}$

31.  $X(-7, -3)$ ,  $Y(-2, -5)$ ,  $Z(-4, -1)$

ANSWER:

acute;  $XY = \sqrt{29}$ ,  $YZ = \sqrt{20}$ ,  $XZ = \sqrt{13}$ ;  $(\sqrt{29})^2 < (\sqrt{20})^2 + (\sqrt{13})^2$