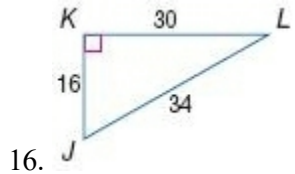


8-4 Trigonometry

Find $\sin J$, $\cos J$, $\tan J$, $\sin L$, $\cos L$, and $\tan L$. Express each ratio as a fraction and as a decimal to the nearest hundredth.

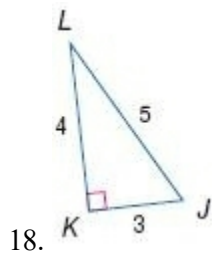


ANSWER:

$$\frac{30}{34} \approx 0.88; \frac{16}{34} \approx 0.47;$$

$$\frac{30}{16} \approx 1.88; \frac{16}{34} \approx 0.47;$$

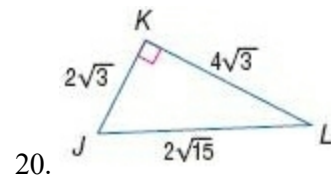
$$\frac{30}{34} \approx 0.88; \frac{16}{34} \approx 0.53$$



ANSWER:

$$\frac{4}{5} = 0.80; \frac{3}{5} = 0.60; \frac{4}{3} \approx 1.33;$$

$$\frac{3}{5} = 0.60; \frac{4}{5} = 0.80; \frac{3}{4} = 0.75$$



ANSWER:

$$\frac{2\sqrt{5}}{5} \approx 0.89; \frac{\sqrt{5}}{5} \approx 0.45;$$

$$\frac{4\sqrt{3}}{2\sqrt{3}} = 2; \frac{\sqrt{5}}{5} \approx 0.45;$$

$$\frac{2\sqrt{5}}{5} \approx 0.89; \frac{2\sqrt{3}}{4\sqrt{3}} = 0.50$$

Use a special right triangle to express each trigonometric ratio as a fraction and as a decimal to the nearest hundredth.

22. $\tan 60^\circ$

ANSWER:

$$\sqrt{3} \approx 1.73$$

24. $\sin 45^\circ$

ANSWER:

$$\frac{\sqrt{2}}{2} \approx 0.71$$

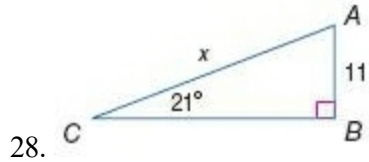
26. $\tan 45^\circ$

ANSWER:

$$1$$

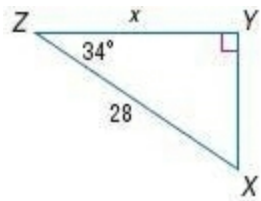
8-4 Trigonometry

Find x . Round to the nearest tenth.



ANSWER:

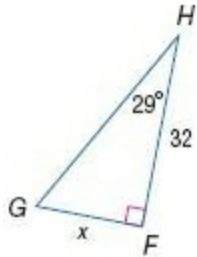
30.7



30.

ANSWER:

23.2

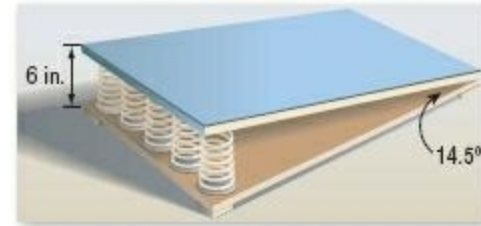


32.

ANSWER:

17.7

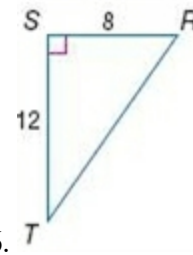
34. **GYMNASTICS** The springboard that Eric uses in his gymnastics class has 6-inch coils and forms an angle of 14.5° with the base. About how long is the springboard?



ANSWER:

about 24 in.

CCSS TOOLS Use a calculator to find the measure of $\angle T$ to the nearest tenth.

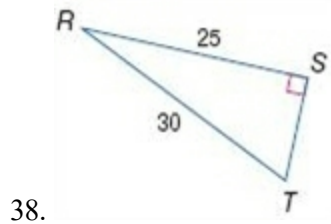


36.

ANSWER:

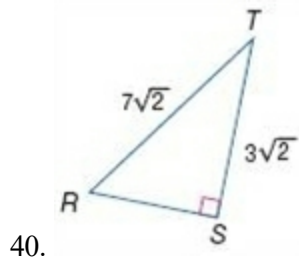
33.7°

8-4 Trigonometry



ANSWER:

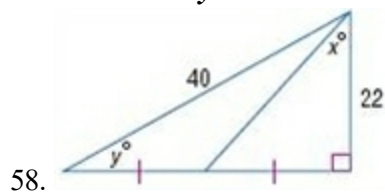
$$56.4^\circ$$



ANSWER:

$$64.6^\circ$$

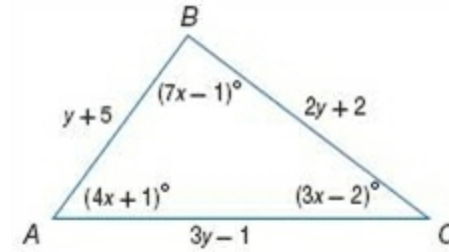
Find x and y . Round to the nearest tenth.



ANSWER:

$$x = 37.2; y = 33.4$$

62. **CHALLENGE** Solve $\triangle ABC$. Round to the nearest whole number.



ANSWER:

$$m\angle A = 53^\circ, m\angle B = 90^\circ, m\angle C = 37^\circ$$

$$AB = 12, BC = 16, AC = 20$$