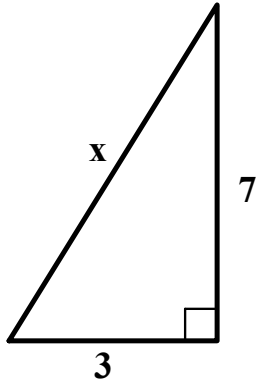


General Algebra II Worksheet #2 Unit 13 Selected Solutions

Find the value of x in each of the following. You must show the equation you used to find x . The drawings are not to scale. Round your solutions to the nearest hundredth.

3. $x \approx \underline{7.62}$



Use the Pythagorean Theorem.

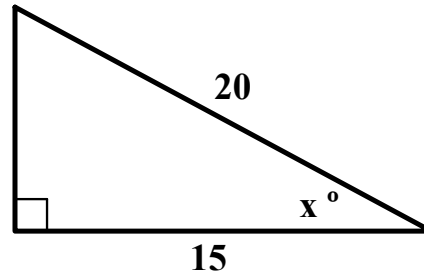
$$x^2 = 9 + 49$$

$$x^2 = 58$$

$$x = \pm \sqrt{58}$$

$$x \approx 7.62 \text{ or } x \approx \cancel{-7.62}$$

6. $x \approx \underline{41.41^\circ}$



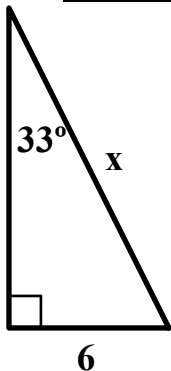
Use the cosine ratio.

$$\cos x^\circ = \frac{15}{20}$$

$$x = \cos^{-1}\left(\frac{3}{4}\right)$$

$$x \approx 41.41^\circ$$

7. $x \approx \underline{11.02}$



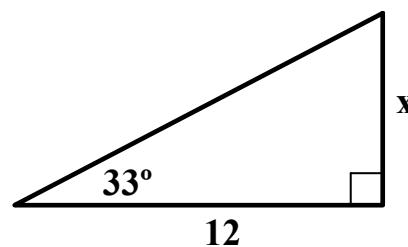
Use the sine ratio.

$$\sin 33^\circ = \frac{6}{x}$$

$$x = \frac{6}{\sin 33^\circ}$$

$$x \approx 11.02$$

10. $x \approx \underline{7.79}$



Use the tangent ratio.

$$\tan 33^\circ = \frac{x}{12}$$

$$x = 12 \tan 33^\circ$$

$$x \approx 7.79$$