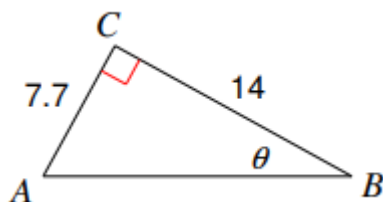


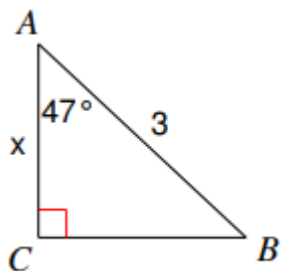
1. If $\sec \theta = 3$, find the remaining 5 trigonometric ratios.

$$\sin \theta = \underline{\hspace{2cm}} \quad \tan \theta = \underline{\hspace{2cm}} \quad \csc \theta = \underline{\hspace{2cm}} \quad \cot \theta = \underline{\hspace{2cm}} \quad \cos \theta = \underline{\hspace{2cm}}$$

2. Solve the triangle below. Round answers to the nearest tenth.



3. Solve the triangle below. Round answers to the nearest tenth.



4. A 37-foot tree casts a 27-foot shadow. What is the angle of elevation of the sun?

5. . You are a block away from a skyscraper that is 780 feet tall. Your friend is between the skyscraper and yourself. The angle of elevation from your position to the top of the skyscraper is 42° . The angle of elevation from your friend's position to the top of the skyscraper is 71° . To the nearest foot, how far are you from your friend?