5.2 - Right Triangle Trigonometry
Review Problems

1. Find the hypotenuse of a right triangle whose legs are 3 and 7.

2. Find the leg of a right triangle whose other leg is 8 and the hypotenuse is 9.
   ### Basic Knowledge

3. Find the five remaining trigonometric functions of an acute angle α if $\csc \alpha = \frac{4}{3}$.

4. Evaluate the following:
   (a) $\sin\left(\frac{\pi}{3}\right)$ (b) $\cos\left(\frac{\pi}{4}\right)$ (c) $\tan\left(\frac{\pi}{6}\right)$ (d) $\cot(45°)$
   ### Intermediate/Advanced Knowledge

5. A skier travels 6000 ft on a ski lift whose angle of inclination is 30°. How high above his starting level is he?

6. At a time when the sun's rays make a 60° angle with the horizontal, how long is the shadow cast by a 25-foot tree?