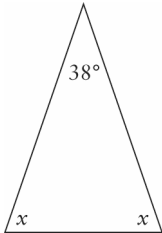


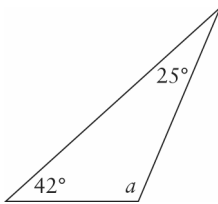
Chapter 1 Prerequisite Skills**Angles and Triangles**

1. Determine the measure of the missing angles. Classify each triangle as acute, obtuse, right, scalene, isosceles, or equilateral.

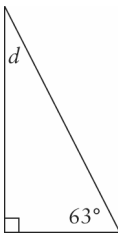
a)



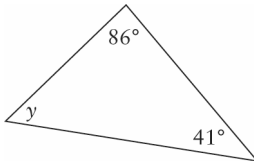
b)



c)



d)



2. Determine the complement of each angle.

- a) 30° b) 54°
c) 83° d) 6°

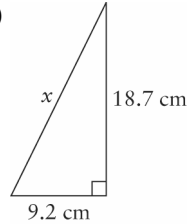
3. Determine the supplement of each angle.

- a) 14° b) 109°
c) 47° d) 172°

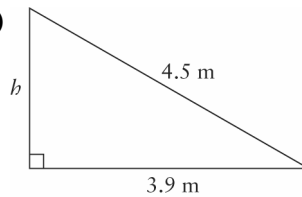
Pythagorean Theorem

4. Determine the length of the indicated side, to the nearest tenth of a unit.

a)



b)

**Equations and Proportions**

5. Solve.

a) $600 = 100 + 75 - 5x$

b) $18 = \frac{81}{x}$

c) $a^2 + 200 = 425$

d) $1 = -\frac{d}{4} + 3$

6. Solve each proportion. If necessary, round your answers to one decimal place.

a) $\frac{x}{26} = \frac{12}{39}$

b) $\frac{15}{x} = \frac{24}{10}$

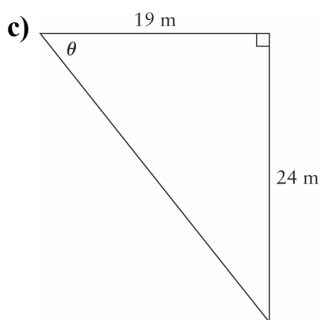
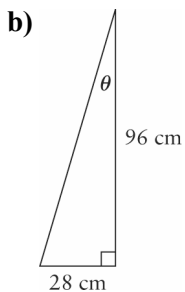
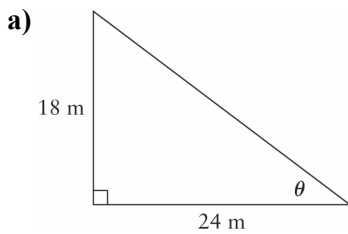
c) $\frac{84}{17} = \frac{12}{x}$

d) $\frac{6}{42} = \frac{x}{48} = \frac{y}{21}$



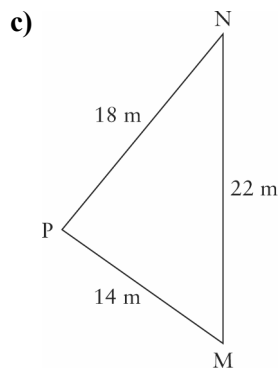
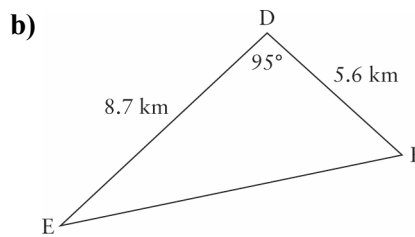
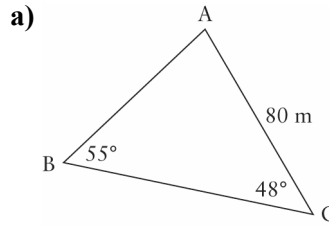
Trigonometry

7. Determine the exact primary trigonometric ratios for θ .



8. According to safety standards, the angle that the base of a ladder makes with the ground should be between 70° and 80° . Lorenzo is standing on an 11-m ladder. The base of the ladder is 1.5 m from the wall. Does this meet the safety standards?

9. Solve each triangle. Express all side lengths to the nearest tenth of a unit and all angle measures to the nearest degree.



10. A skateboard ramp is to be built according to the specifications shown. Calculate the angle of inclination of the ramp to the nearest degree.

