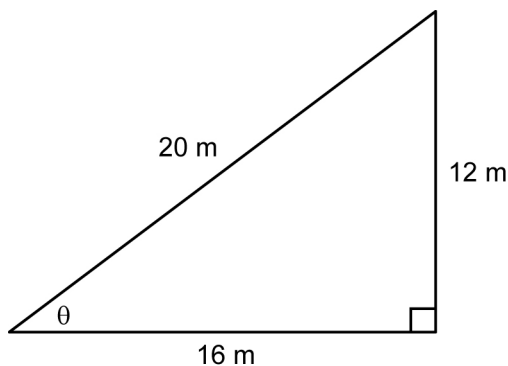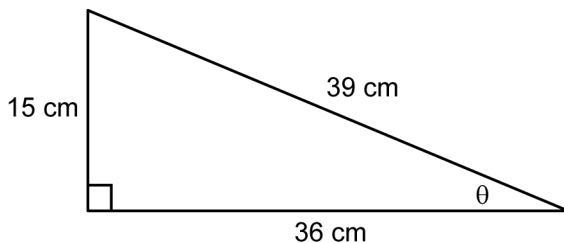# Section 7.4 Practice Master

1. Find sin θ, cos θ, and tan θ for each triangle, expressed as fractions in lowest terms.

a)

20 m 12 m θ 16 m
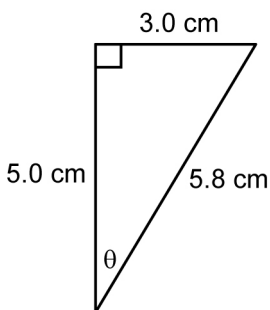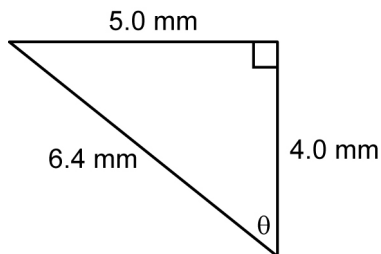
b)

15 cm 39 cm θ 36 cm

c)

3.0 cm 5.0 cm 5.8 cm θ

d)

5.0 mm 6.4 mm 4.0 mm θ

2. Find the three primary trigonometric ratios for ∠A, to four decimal places.

a)

B 17.5 cm 13.4 cm A 11.2 cm C

b)

B 14.2 m 7.1 m A 12.3 m C
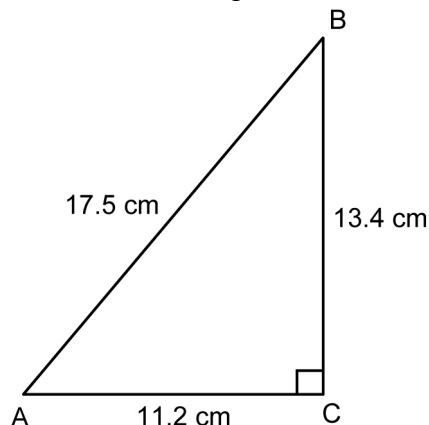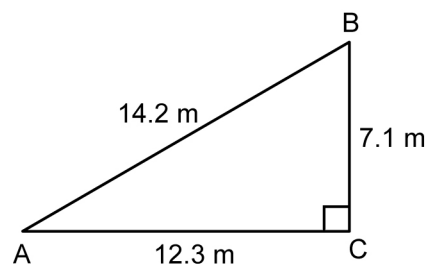
3. Evaluate with a calculator. Round your answers to four decimal places.
a) sin 72°
b) sin 16°
c) sin 64°
d) sin 23°

4. Evaluate with a calculator. Round your answers to four decimal places.
a) cos 42°
b) cos 85°
c) cos 14°
d) cos 36°

5. Find the measure of each angle, to the nearest degree.

a) $\sin \theta = 0.5189$

b) $\sin Q = 0.8476$

c) $\sin \theta = \dfrac{3}{8}$

d) $\sin R = \dfrac{9}{11}$

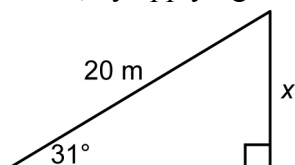**6.** Find the measure of each angle, to the nearest degree.

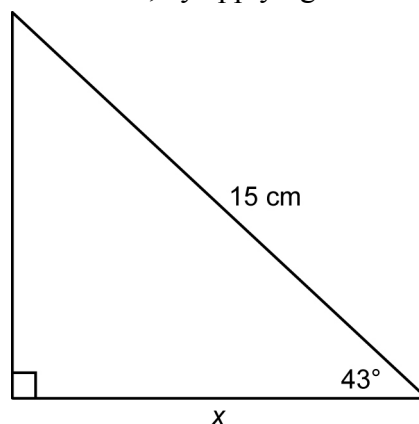**a)** $\cos \theta = 0.7258$

b) $\cos W = 0.3194$

c) $\cos \theta = \dfrac{5}{9}$

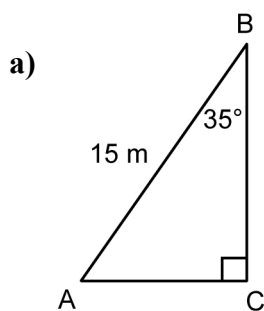**d)** $\cos B = \dfrac{9}{10}$

7. a) Find the value of x, to the nearest tenth of a metre, by applying the sine ratio.

b) Find the value of x, to the nearest tenth of a centimetre, by applying the cosine ratio.

8. Solve each triangle. Round side lengths to the nearest tenth of a metre.

a)

b) In $\triangle PQR$, $\angle P = 34°$, $\angle Q = 90°$, and $q = 20$ m.