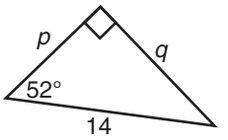
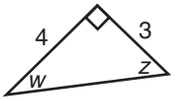
Practice Run

1 a. Determine the length of p.



b. Determine the length of q.

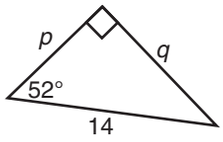
2 a. Determine the measure of angle w.



b. Determine the measure of angle z.

Compare your answers.

1 a. Determine the length of p.

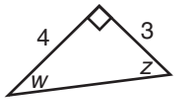


$$\cos x = \frac{\text{adj}}{\text{hyp}}$$
$$\cos 52^\circ = \frac{p}{14}$$
$$14 \cos 52^\circ = p$$
$$8.61... = p$$
$$8.6 \doteq p$$

b. Determine the length of q.

$$a^2 + b^2 = c^2$$
$$(8.61...)^2 + q^2 = 14^2$$
$$74.29... + q^2 = 196$$
$$q^2 = 121.70...$$
$$q = \sqrt{121.70...}$$
$$q \doteq 11.0$$

2 a. Determine the measure of angle w.



$$\tan w = \frac{3}{4}$$
$$w = \tan^{-1}\left(\frac{3}{4}\right)$$
$$w = 36.86...$$
$$w \doteq 37^\circ$$

b. Determine the measure of angle z.

$$\tan z = \frac{4}{3}$$
$$z = \tan^{-1}\left(\frac{4}{3}\right)$$
$$z = 53.13...^\circ$$
$$z \doteq 53^\circ$$