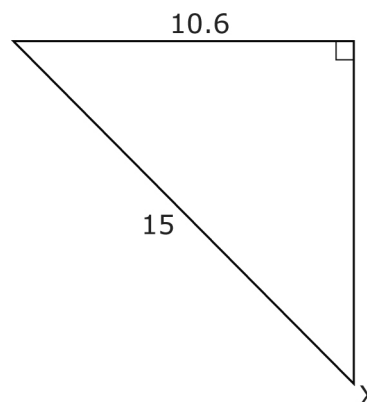


# Chapter 7 Warm-Up

## Section 7.1 Warm-Up

1. Evaluate  $13^2 - 7^2$ .
2. Calculate  $\sqrt{71}$ , to the nearest hundredth.
3. Solve for  $x$ .
  - a)  $18 = \frac{x}{50}$
  - b)  $6 = \frac{42}{x}$
  - c)  $13.2x = 4.4$
4. Estimate. Then, calculate.  
Express your answer to the nearest tenth.
  - a)  $10^2$
  - b)  $5.7^2$
  - c)  $\sqrt{7}$
  - d)  $\sqrt{26}$

5.



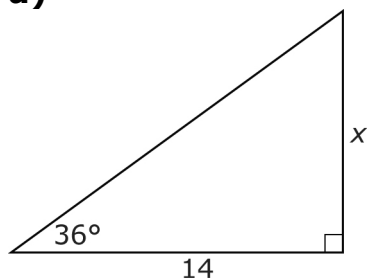
- a) Estimate the size of  $\angle X$ .
- b) Which side is adjacent to  $\angle X$ ?  
Which side is opposite  $\angle X$ ?
- c) What trigonometric ratio could you use to find  $\angle X$ ?
- d) Calculate the measure of  $\angle X$ , to the nearest degree.
- e) How close was your estimate from part a)?



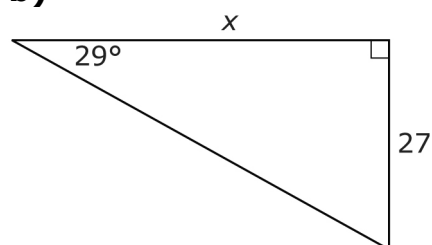
## Section 7.2 Warm-Up

1. Determine the length of the indicated side using the tangent ratio. Express your answer to the nearest tenth of a unit.

**a)**

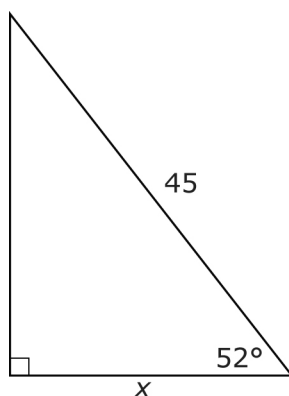


**b)**

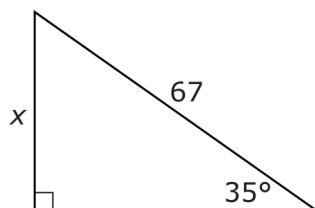


2. Determine the length of the indicated side, to the nearest hundredth.

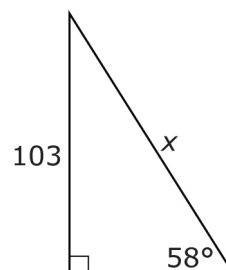
**a)**



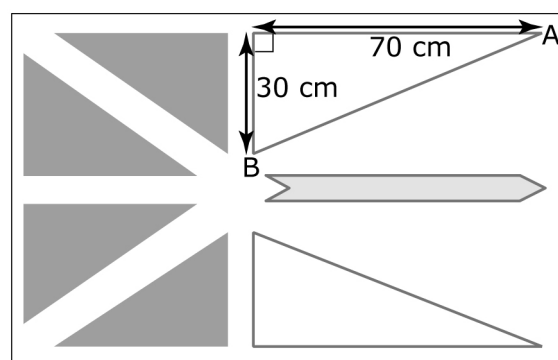
**b)**



**c)**



3. The flag of Newfoundland and Labrador has a number of right triangles in it.



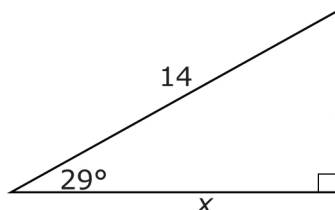
- a)** Determine the measure of  $\angle A$ , to the nearest degree.  
**b)** Determine the measure of  $\angle B$ , to the nearest degree.

4. A gardener uses a special pickup truck that acts as a dump truck to move soil. If the 80-in. truck bed is raised to a  $40^\circ$  angle, how high is the upper end of the truck bed above the wheels? Express your answer to the nearest inch.

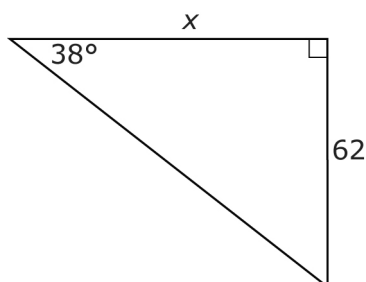


### Section 7.3 Warm-Up

1. Determine the length of the indicated side given the angle of elevation. Express your answer to the nearest tenth of a unit.

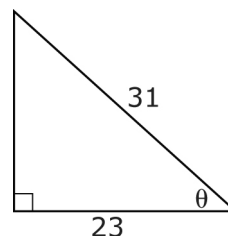


2. Determine the length of the indicated side given the angle of depression. Express your answer to the nearest hundredth of a unit.

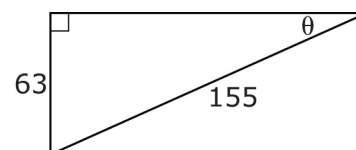


3. Determine the measure of the indicated angle to the nearest degree.

a)



b)



4. A lighthouse is 18 m high. The angle of elevation from a ship to the top of the tower is  $22^\circ$ . How far is the ship from the base of the lighthouse, to the nearest tenth of a metre?
5. Ashleigh moves into a new apartment. From her window, she can see a grocery store across the street. If her apartment is 30 m above the ground, and she looks at the store with an angle of depression of  $63^\circ$ , what is the horizontal distance from the store to the apartment building, to the nearest tenth of a metre?

