Name: _____ Date: _____

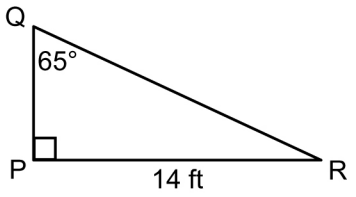
BLM 1–14

Chapter 1 Review

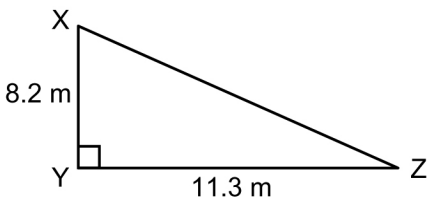
1.1 Revisit the Primary Trigonometric Ratios, pages 6-15

1. Solve each right triangle.

a)



b)



2. Solve △ABC given ∠C = 90°, a = 88 cm, and c = 117 cm.

1.2 Solve Problems Using Trigonometric Ratios, pages 16-23

3. A flagpole casts a shadow 17.7 m long when the angle of elevation of the sun is 66.4°. How tall is the flagpole?

4. A boat is off course by 11° after travelling 27.8 km. How far off course is the boat?

1.3 The Sine Law, pages 24-33

5. What information do you need about a triangle to solve it using the sine law?

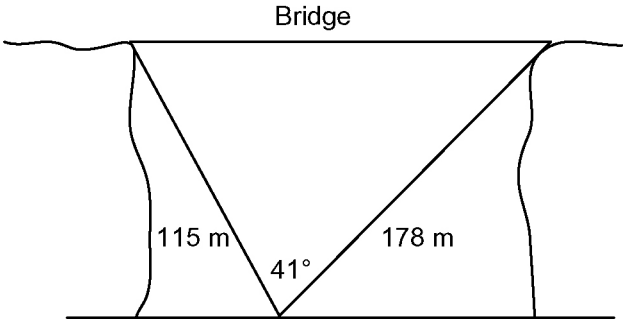
6. Solve △ABC given b = 17 ft, ∠B = 62°, and ∠A = 34°.

1.4 The Cosine Law, pages 34-41

7. In △XYZ, ∠X = 66°, XY = 111 m, and XZ = 222 m. Find the length of YZ.

8. In a triangle, the sides have lengths of 14 cm, 15 cm, and 16 cm. What are the angle measures, to the nearest tenth?

9. A surveyor in a canyon takes measurements and draws the diagram shown. Determine the length of a bridge that would stretch across the canyon.



1.5 Make Decisions Using Trigonometry, pages 42-51

10. The Bermuda Triangle is an area off the coast of Miami, extending to the islands of Bermuda and Puerto Rico. The distance from Miami to Bermuda is 1680 km, from Bermuda to Puerto Rico is 1760 km, and from Puerto Rico to Miami is 1600 km. Find the measures of the angles of this triangle.

11. To create a dramatic lighting effect during a play, the lighting crew has installed three lights in the arrangement shown. How far apart are the Lights A and B?