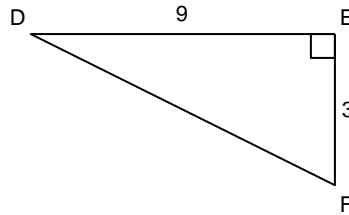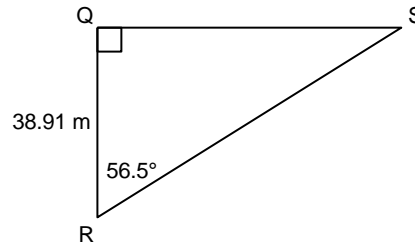1.   Determine the measure of $\angle$ D to the nearest tenth of a degree.

    (A) 18.4°
    (B) 19.5°
    (C) 70.5°
    (D) 71.6°

2.   A surveyor made the measurements shown in the diagram. Determine the distance
    from R to S, to the nearest hundredth of a meter.

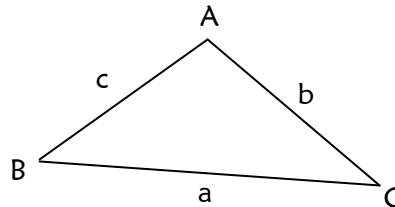   (A) 25.75 m
    (B) 46.66 m
    (C) 58.79m
    (D) 70.50 m

3.   If a triangle has sides of lengths a, b and c, then according to the Law of Sines,
    what does a equal?

    (A) $\dfrac{c\sin C}{\sin A}$
    (B) $\dfrac{c\sin A}{\sin C}$
    (C) $\dfrac{c\sin B}{\sin A}$
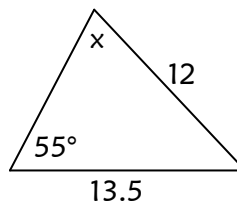   (D) $\dfrac{\sin C}{a\sin A}$

4.   Which of the following would be the correct formula to use for finding the length of AB?

    (A) $b^2 = a^2 + c^2 - 2ac\cos B$
    (B) $c^2 = a^2 + b^2 + 2ab\cos C$
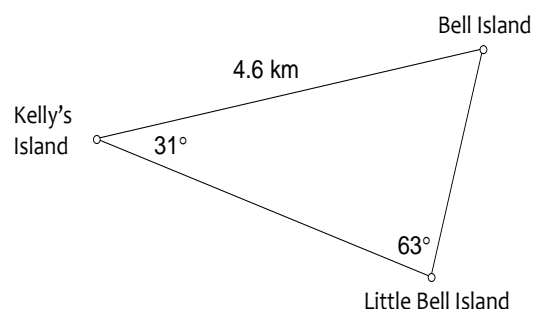   (C) $c^2 = a^2 + b^2 - 2ab\cos C$
    (D) $a^2 = b^2 + c^2 - 2bc\cos A$

5.   Find the measure of the missing angle to the nearest degree.

   (A) 67°
    (B) 23°
    (C) 50°
    (D) 35°

6.   The straight-line distance between Kelly's Island and Bell Island is 4.6 km. Bonita
    and John want to take their boat from Kelly's Island to the tip of Little Bell Island.
    How far will they travel? Give your answer to the nearest tenth of a meter.

7. Find the missing value of x in the following triangle to the nearest meter.

A
54^0
14 m
B
11 m
x
C
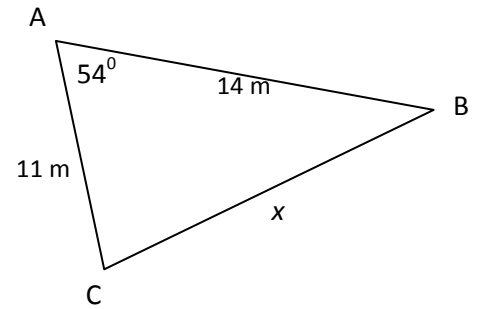
8. Solve the triangle.

B
β
13 m
18 m
α
C
θ
16 m
A
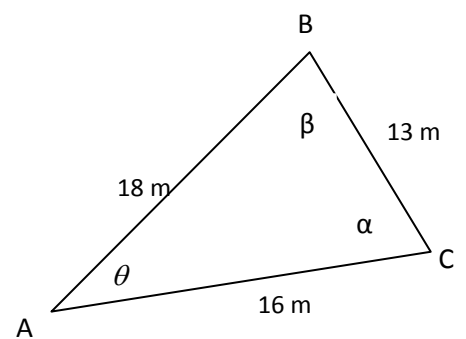
9. A radio tower is supported by two wires on opposite sides. On the ground, the ends of the wires are 46.5 m apart. The angles of elevation for the wires are 62° and 67° respectively. Determine the length of the **longest wire** and the height of the **tower** to the nearest tenth of a meter.

67°
62°
46.5 m