

M126 Trigonometry Chapter 7 Review

Solve triangle ABC. If necessary, round the answer to the nearest tenth.

1) $A = 29.2^\circ$, $B = 28.2^\circ$, $a = 21.0$ feet 1) _____

Solve the problem.

2) A guy wire to a tower makes a 69° angle with level ground. At a point 33 ft farther from the tower than the wire but on the same side of the base as the wire, the angle of elevation to the top of the pole is 31° . Find the wire length (to the nearest foot). 2) _____

3) $B = 40.1^\circ$, $b = 24.1$ in., $c = 19.4$ in.

4) $A = 21^\circ$, $a = 35$ km, $b = 50$ km
(Round answers to whole numbers)

5) $A = 75^\circ$, $a = 33$ yd, $b = 67$ yd

6) $a = 6.9$, $b = 13.0$, $c = 16.2$ 6) _____

Find the area of the SAS triangle ABC. If necessary, round the answer to two decimal places.

7) $A = 83^\circ$, $b = 9$ cm, $c = 6$ cm 7) _____

Find the area of the SSS triangle ABC. If necessary, round the answer to two decimal places.

8) $a = 6$, $b = 6$, $c = 7$ 8) _____

MORE CHAPTER 6 REVIEW

Find all solutions of the equation in the interval $[0^\circ, 360^\circ)$. Round the answers to the nearest tenth of a degree.

9) $\sec \theta = -9.7$ 9) _____

10) $\tan (\theta + 60^\circ) = 7$ 10) _____

Answer Key

Testname: CHAPTER 7 REVIEWT

- 1) $C = 122.7^\circ$, $b = 20.3$ ft, $c = 36.3$ ft
- 2) 28 ft
- 3) $A = 108.7^\circ$, $C = 31.2^\circ$, $a = 35.4$ in.
- 4) $B = 31^\circ$, $C = 128^\circ$, $c = 77$ km
 $B' = 149^\circ$, $C' = 10^\circ$, $c' = 17$ km
- 5) No solution
- 6) $A = 24.3^\circ$, $B = 50.9^\circ$, $C = 104.8^\circ$
- 7) 26.80 sq cm
- 8) 17.06
- 9) $\{95.9^\circ, 264.1^\circ\}$
- 10) $\{21.9^\circ, 201.9^\circ\}$