

PRACTICE Quiz 3.1 - 3.2 Law of Sines**Solve each triangle. Round your answers to the nearest tenth.**

1) $m\angle A = 20^\circ$, $c = 27$ km, $a = 18$ km

2) $m\angle A = 46^\circ$, $c = 35$ yd, $a = 30$ yd

3) $m\angle B = 87^\circ$, $a = 28$ km, $b = 22$ km

4) $m\angle A = 107^\circ$, $m\angle C = 12^\circ$, $b = 21$ mi

5) $m\angle A = 135^\circ$, $m\angle C = 6^\circ$, $c = 4$ in

6) $m\angle B = 12^\circ$, $m\angle C = 40^\circ$, $a = 38$ yd

Find the area of each triangle to the nearest tenth.

7) $c = 8$ km, $a = 12$ km, $m\angle B = 26^\circ$

8) $a = 7$ yd, $c = 6$ yd, $m\angle B = 82^\circ$

PRACTICE Quiz 3.1 - 3.2 Law of Sines

Solve each triangle. Round your answers to the nearest tenth.

1) $m\angle A = 20^\circ$, $c = 27$ km, $a = 18$ km

$$m\angle B = 129.1^\circ, m\angle C = 30.9^\circ, b = 40.8 \text{ km}$$
$$\text{Or } m\angle B = 10.9^\circ, m\angle C = 149.1^\circ, b = 10 \text{ km}$$

2) $m\angle A = 46^\circ$, $c = 35$ yd, $a = 30$ yd

$$m\angle B = 76.9^\circ, m\angle C = 57.1^\circ, b = 40.6 \text{ yd}$$
$$\text{Or } m\angle B = 11.1^\circ, m\angle C = 122.9^\circ, b = 8 \text{ yd}$$

3) $m\angle B = 87^\circ$, $a = 28$ km, $b = 22$ km

Not a triangle

4) $m\angle A = 107^\circ$, $m\angle C = 12^\circ$, $b = 21$ mi

$$m\angle B = 61^\circ, c = 5 \text{ mi}, a = 23 \text{ mi}$$

5) $m\angle A = 135^\circ$, $m\angle C = 6^\circ$, $c = 4$ in

$$m\angle B = 39^\circ, a = 27.1 \text{ in}, b = 24.1 \text{ in}$$

6) $m\angle B = 12^\circ$, $m\angle C = 40^\circ$, $a = 38$ yd

$$m\angle A = 128^\circ, c = 31 \text{ yd}, b = 10 \text{ yd}$$

Find the area of each triangle to the nearest tenth.

7) $c = 8$ km, $a = 12$ km, $m\angle B = 26^\circ$

$$21 \text{ km}^2$$

8) $a = 7$ yd, $c = 6$ yd, $m\angle B = 82^\circ$

$$20.8 \text{ yd}^2$$