

# Chapter 7 BLM Answers

## BLM 7-2 Chapter 7 Warm-Up

### Section 7.1

- 0.669
- $59^\circ$
- $45^\circ$
- $58^\circ$
- 15.9

### Section 7.2

- $\frac{n}{\sin N} = \frac{o}{\sin O}$
- 21.9 m
- $31^\circ$
- 12.4
- $39^\circ$

### Section 7.3

- $y^2 = x^2 + z^2 - 2xz \cos Y$
- $\cos Z = \frac{x^2 + y^2 - z^2}{2xy}$
- $37^\circ$
- 14.9 m
- $149^\circ$

## BLM 7-3 Section 7.1 Extra Practice

- $\frac{q}{\sin Q} = \frac{r}{\sin R}$
  - $\frac{\sin Q}{q} = \frac{\sin R}{r}$
- 9.0 cm
  - 36.5 m
  - $16\frac{1}{2}$  in.
  - 9 ft
- $15^\circ$
  - $33^\circ$
  - $33^\circ$
  - $35^\circ$
- 20.3 m
  - 10.5 cm
  - 142.0 m
  - 42.6 cm
- $58^\circ$
  - $63^\circ$
  - $60^\circ$
  - $63^\circ$
- 24 mi
- $63^\circ$

## BLM 7-5 Section 7.2 Extra Practice

- $q^2 = p^2 + r^2 - 2pr \cos Q$
  - $r^2 = p^2 + q^2 - 2pq \cos R$
  - $\cos Q = \frac{p^2 + r^2 - q^2}{2pr}$
  - $\cos R = \frac{p^2 + q^2 - r^2}{2pq}$
- 11.8 m
  - $16\frac{1}{10}$  in.
  - 61.1 km
  - $53\frac{3}{5}$  ft
- $32^\circ$
  - $122^\circ$
- 148 km
- $41^\circ$
  - $22^\circ$
  - $48^\circ$
  - $52^\circ$
- $74^\circ$

## BLM 7-6 Section 7.3 Extra Practice

- Yes
  - No
  - Yes
  - No
- Yes
  - No
  - No
  - Yes
- $24\frac{1}{2}$  ft
  - 41 cm
  - $46^\circ$
  - $82^\circ$
- $51^\circ$
  - 19.9 m
- $A = 79^\circ, B = 43^\circ, C = 58^\circ$

## BLM 7-7 Chapter 7 Test

- A
- B
- D
- D
- A
- You can use the sine law when you know two angles and a side, or two sides and an angle.
  - You can use the cosine law when you know three sides, or two sides and the angle between them.
- 2 miles, 4 miles
- 225.1 m
- $50.1^\circ, 73.6^\circ,$  and  $56.3^\circ$
- 2882 ft

