

Chapter 7 BLM Answers

BLM 7-2 Chapter 7 Warm-Up

Section 7.1

1. 0.669
2. 59°
3. 45°
4. 58°
5. 15.9

Section 7.2

1. $\frac{n}{\sin N} = \frac{o}{\sin O}$
2. 21.9 m
3. 31°
4. 12.4
5. 39°

Section 7.3

1. $y^2 = x^2 + z^2 - 2xz \cos Y$
2. $\cos Z = \frac{x^2 + y^2 - z^2}{2xy}$
3. 37°
4. 14.9 m
5. 149°

BLM 7-3 Section 7.1 Extra Practice

1. a) $\frac{q}{\sin Q} = \frac{r}{\sin R}$ b) $\frac{\sin Q}{q} = \frac{\sin R}{r}$
2. a) 9.0 cm b) 36.5 m c) $16\frac{1}{2}$ in.
d) 9 ft
3. a) 15° b) 33° c) 33° d) 35°
4. a) 20.3 m b) 10.5 cm c) 142.0 m
d) 42.6 cm
5. a) 58° b) 63° c) 60° d) 63°
6. 24 mi
7. 63°

BLM 7-5 Section 7.2 Extra Practice

1. a) $q^2 = p^2 + r^2 - 2pr \cos Q$
b) $r^2 = p^2 + q^2 - 2pq \cos R$
c) $\cos Q = \frac{p^2 + r^2 - q^2}{2pr}$
d) $\cos R = \frac{p^2 + q^2 - r^2}{2pq}$
2. a) 11.8 m b) $16\frac{1}{10}$ in. c) 61.1 km
d) $53\frac{3}{5}$ ft
3. a) 32° b) 122°
4. 148 km
5. a) 41° b) 22° c) 48° d) 52°
6. 74°

BLM 7-6 Section 7.3 Extra Practice

1. a) Yes b) No c) Yes d) No
2. a) Yes b) No c) No d) Yes
3. a) $24\frac{1}{2}$ ft b) 41 cm c) 46° d) 82°
4. a) 51° b) 19.9 m
5. $A = 79^\circ$, $B = 43^\circ$, $C = 58^\circ$

BLM 7-7 Chapter 7 Test

1. A
2. B
3. D
4. D
5. A
6. a) You can use the sine law when you know two angles and a side, or two sides and an angle.
b) You can use the cosine law when you know three sides, or two sides and the angle between them.
7. 2 miles, 4 miles
8. 225.1 m
9. 50.1° , 73.6° , and 56.3°
10. 2882 ft

