LESSON 18-1

Practice and Problem Solving: A/B

1. $\frac{VW}{WX} = \frac{YZ}{ZX}$
2. $\frac{WX}{VW}$
3. X
4. V
5. 1
6. 90
7. 0.42
8. 0.93
9. 1.07
10. 8.0°; 8.0°
11. 45°; 45°
12. 80.7°; 80.7°
13. 1.3333
14. $\frac{0.75}{3.5}$; 0.2143; 12°
15. $\tan 27 = \frac{18}{CE}$; $\tan 27 = 0.51$; $CE = 35.3$ m
16. $\tan 3 = \frac{EF}{5280}$; $\tan 3 = 0.05$; $EF \approx 277$ ft

LESSON 18-2

Practice and Problem Solving: A/B

1. $3^2 + 5.2^2 = 6^2$. $9 + 27.04 = 36.04$. $\sqrt{36.04} \approx 6.00$. The side lengths satisfy the Pythagorean theorem, so the triangle is a right triangle.
2. $\frac{5.2}{6} \approx 0.87$
3. $\frac{3}{6} = 0.50$
4. $\frac{3}{6} = 0.50$
5. $\frac{5.2}{6} \approx 0.87$
6. $m\angle 1 = \sin^{-1} 0.87 = 60°$
7. $m\angle 2 = \sin^{-1} 0.50 = 30°$
8. 12.46 m
9. 19.70 mm
10. 5.6 ft
11. 9.5 cm
12. 36.4 in.
13. 10.0 in.

LESSON 18-3

Practice and Problem Solving: A/B

1. $\frac{12}{13} \approx 0.92$

2. $\frac{5}{13} \approx 0.38$

3. $\frac{5}{12} \approx 0.42$

4. $\frac{5}{13} \approx 0.38$

5. $\frac{1}{2}$

6. $\frac{\sqrt{3}}{2}$

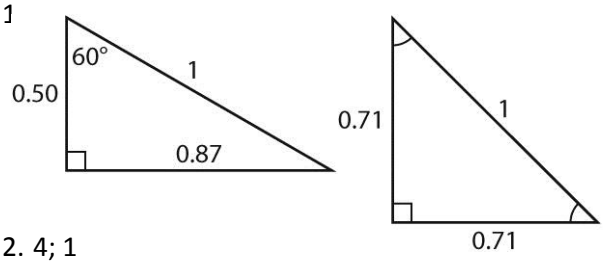
7. 1

8. $\frac{\sqrt{3}}{3}$

9. $\frac{\sqrt{2}}{2}$

10. $\sqrt{3}$

11



12. 4; 1

13. 32 in.; 16 in.

14. 6 in.

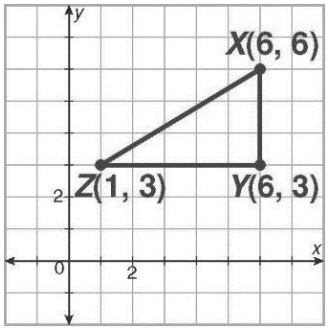
LESSON 18-4

Practice and Problem Solving: A/B

1. 3 yd; 37°; 53°

2. 13.99 ft; 11.33 ft; 39°

3. 8 km; 62°; 28°

4. 

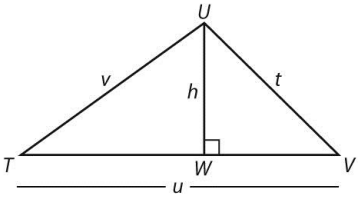
5. 3; 5; 5.83

6. 59°; 31°

7. $BC = 8.60$; $BD = 7$; $CD = 5$; $m\angle B = 36°$; $m\angle C = 54°$; $m\angle D = 90°$

8. $LM = 2$; $LN = 7$; $MN = 7.28$; $m\angle L = 90°$; $m\angle M = 74°$; $m\angle N = 16°$

9. $XY = 1$; $XZ = 1.41$; $YZ = 1$; $m\angle X = 45°$; $m\angle Y = 90°$; $m\angle Z = 45°$

10. 

$\sin T = \frac{h}{v}$; $h = v \sin T$; $A = \frac{1}{2} u\, v \sin T$

11. 42 units^2