

Answer Key

Practice B

1. $\sin \theta = \frac{8}{17}$; $\cos \theta = \frac{15}{17}$; $\tan \theta = \frac{8}{15}$;

$\cot \theta = \frac{15}{8}$; $\sec \theta = \frac{17}{15}$; $\csc \theta = \frac{17}{8}$

2. $\sin \theta = \frac{2}{5}$; $\cos \theta = \frac{\sqrt{21}}{5}$; $\tan \theta = \frac{2\sqrt{21}}{21}$;

$\cot \theta = \frac{\sqrt{21}}{2}$; $\sec \theta = \frac{5\sqrt{21}}{21}$; $\csc \theta = \frac{5}{2}$

3. $\sin \theta = \frac{2\sqrt{2}}{3}$; $\cos \theta = \frac{1}{3}$; $\tan \theta = 2\sqrt{2}$;

$\cot \theta = \frac{\sqrt{2}}{4}$; $\sec \theta = 3$; $\csc \theta = \frac{3\sqrt{2}}{4}$

4. $x = 7\sqrt{2}$; $y = 7$ 5. $x = 5$; $y = 5\sqrt{3}$

6. $x = 2\sqrt{3}$; $y = \sqrt{3}$ 7. 0.8910

8. 0.0875 9. 0.7431 10. 0.1584

11. 2.5593 12. 2.4586 13. 4.3315

14. 0.5299

15. $B = 44^\circ$; $a \approx 8.3$; $c \approx 11.5$

16. $A = 66^\circ$; $a \approx 11.9$; $b \approx 5.3$

17. $A = 72^\circ$; $a \approx 9.5$; $b \approx 3.1$

18. $B = 35^\circ$; $b \approx 14.0$; $c \approx 24.4$

19. $A = 20^\circ$; $b \approx 16.5$; $c \approx 17.5$

20. $B = 83^\circ$; $a \approx 2.2$; $c \approx 18.1$

21. about 14.4 ft 22. about 21,477 ft or 4.1 mi