SM2H Unit 8 Trigonometry
Test Review Answer Key

1. $x = 2\sqrt{39}$
2. $x = \sqrt{317}$

3.
$$\sin\theta = \frac{4}{5}$$
$$\cos\theta = \frac{3}{5}$$
$$\tan\theta = \frac{4}{3}$$
$$\csc\theta = \frac{5}{4}$$
$$\sec\theta = \frac{5}{3}$$
$$\cot\theta = \frac{3}{4}$$

4. $x = 6.9$
5. $x = 13.7$
6. 0.6691
7. 8.2055
8. 0.5543
9. $\tan\theta = \frac{3\sqrt{55}}{55}$
10. $\csc\theta = \frac{4}{3}$
11. $\theta = 48.9°$
12. $\theta = 56.3°$

13.
$$m\angle A = 43.4°$$
$$m\angle B = 46.6°$$
$$m\angle C = 90°$$
$$a = 11.6$$
$$b = 11$$
$$c = 16$$

14.
$$m\angle A = 48°$$
$$m\angle B = 42°$$
$$m\angle C = 90°$$
$$a = 20$$
$$b = 18$$
$$c = 26.9$$

15. angle measure: 72°
reference angle: 72°

16. angle measure: 225°
reference angle: 45°

17. angle measure: 310°
reference angle: 50°

18.
$$\sin\theta = \frac{5\sqrt{26}}{26}$$
$$\cos\theta = \frac{\sqrt{26}}{26}$$
$$\tan\theta = 5$$

19.
$$\sin\theta = \frac{-3}{5}$$
$$\cos\theta = \frac{4}{5}$$
$$\tan\theta = \frac{-3}{4}$$

20.
$$\sin\theta = \frac{-15}{17}$$
$$\cos\theta = \frac{-8}{17}$$
$$\tan\theta = \frac{15}{8}$$

21. $\theta = 78.69°$
22. $\theta = 323.13°$
23. $\theta = 241.93°$

24.
$$x = 8$$
$$y = 4\sqrt{2}$$

25.
$$x = 6$$
$$y = 3\sqrt{3}$$

26.
$$x = 7$$
$$y = 7\sqrt{3}$$

27.
$$x = 3\sqrt{2}$$
$$y = 3\sqrt{2}$$

28. $\theta = 315°$
29. $\theta = 120°$
30. $\theta = 225°$
31. $5\sqrt{2}$ cm
32. 18.1 ft
33. 23.3 ft
34. 272.3 cm
35. 19.2 ft
36. 5.8°