

SM2H Unit 8 Trigonometry
Test Review Answer Key

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

$\sin q = \frac{4}{5}$

$\cos q = \frac{3}{5}$

$\tan q = \frac{4}{3}$

3. $\csc q = \frac{5}{4}$

$\sec q = \frac{5}{3}$

$\cot q = \frac{3}{4}$

4. $x = 6.9$

5. $x = 13.7$

6. 0.6691

7. 8.2055

8. 0.5543

9. $\tan q = \frac{3\sqrt{55}}{55}$

10. $\csc q = \frac{4}{3}$

11. $q = 48.9^\circ$

12. $q = 56.3^\circ$

$m\angle A = 43.4^\circ$

$m\angle B = 46.6^\circ$

13. $m\angle C = 90^\circ$

$a = 11.6$

$b = 11$

$c = 16$

$m\angle A = 48^\circ$

$m\angle B = 42^\circ$

14. $m\angle C = 90^\circ$

$a = 20$

$b = 18$

$c = 26.9$

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

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

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

$\sin q = \frac{5\sqrt{26}}{26}$

18. $\cos q = \frac{\sqrt{26}}{26}$

$\tan q = 5$

$\sin q = \frac{-3}{5}$

19. $\cos q = \frac{4}{5}$

$\tan q = \frac{-3}{4}$

$\sin q = \frac{-15}{17}$

20. $\cos q = \frac{-8}{17}$

$\tan q = \frac{15}{8}$

21. $q = 78.69^\circ$

22. $q = 323.13^\circ$

23. $q = 241.93^\circ$

$x = 8$

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

$x = 6$

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

$x = 7$

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

$x = 3\sqrt{2}$

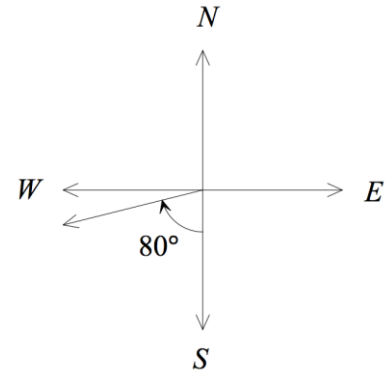
27. $y = 3\sqrt{2}$

28. $q = 315^\circ$

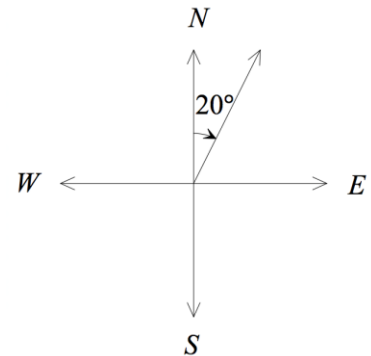
29. $q = 120^\circ$

30. $q = 225^\circ$

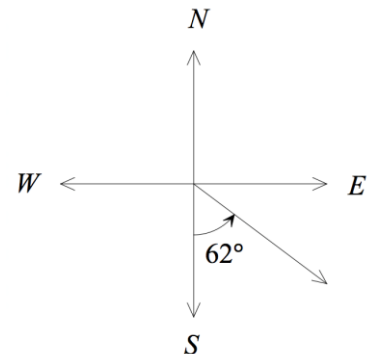
31.



32.



33.



34. $5\sqrt{2}$ cm

35. 18.1 ft

36. 23.3 ft

37. 272.3 cm

38. 19.2 ft

39. 5.8°

40. 13.1 nautical miles