# SM2H 7.2 Parallel Lines and Angle Relationships Answers

1. $\angle 1,\ \angle 8,\ \angle 4,\ \angle 5$

2. $\angle 2,\ \angle 7,\ \angle 3,\ \angle 6$

3. $\angle 2$ & $\angle 6,\ \angle 7$ & $\angle 3$

4. $\angle 2$ & $\angle 3,\ \angle 7$ & $\angle 6$

5. $\angle 1$ & $\angle 3,\ \angle 2$ & $\angle 4$

   $\angle 8$ & $\angle 6,\ \angle 7$ & $\angle 5$

6. Corresponding

7. Alternate Interior

8. Alternate Exterior

9. Linear Pair

10. Linear Pair

11. Alternate Interior

12. Corresponding

13. Same Side Interior

14. None

15. Vertical

16. $\angle 3, \angle 6, \angle 8, \angle 9, \angle 11, \angle 14, \angle 16$

17. $\angle 2, \angle 5, \angle 4, \angle 7, \angle 12, \angle 15, \angle 10, \angle 13$

18. $m\angle 1, \angle 3, \angle 6, \angle 8, \angle 9, \angle 11, \angle 14, \angle 16 = 105$

    $m\angle 2, \angle 5, \angle 4, \angle 7, \angle 12, \angle 15, \angle 10, \angle 13 = 75$

19. $x = 63$
Same Side Interior Angles Supplementary

20. $x = 73$ Alternate Exterior Angles Congruent

21. $x = 68$ Alternate Interior Angles Congruent

22. $x = 84$ Corresponding Angles Congruent

23. $x = 59$ Complementary Angles

24. $x = 74$ Linear Pair or Supplementary Angles

25. $x = 9,\ 80^\circ$ Alternate Interior Angles Congruent

26. $x = 6,\ 125^\circ$
Same Side Interior Angles Supplementary

27. $x = 11,\ 90^\circ$
Corresponding Angles Congruent

28. $x = 7,\ 96^\circ$ Linear Pair or Supplementary

29. $x = 2,\ 130^\circ$
Alternate Exterior Angles Congruent

30. $x = -7,\ 105^\circ$ Vertical Angles Congruent

31. $x = -6,\ 115^\circ$ and 65°
Same Side Interior Angles Supplementary

32. $x = 6,\ 90^\circ$ and 90°
Alternate Interior Angles Congruent

33. $x = 4,\ 75^\circ$ Corresponding Angles Congruent

34. $x = 9,\ 80^\circ$ Vertical Angles Congruent

35. $x = 10,\ 36^\circ$ Complementary Angles

36. $x = 20,\ 57^\circ$ Linear Pair or Supplementary

37. $x = 18,\ y = 20$

38. $x = 15,\ y = 18$

39. $x = 15,\ y = 40$

40. $x = 70,\ y = 70$

41. $x = 60,\ y = 65$

42. $x = 50,\ y = 90$

43. $x = 42,\ y = 108,\ z = 18$

44. $x = 20,\ y = 25,\ z = 24$

45. $x = 50,\ y = 10,\ z = 65$