1. If two lines are parallel, then they have the same slope. T

If two lines do not have the same slope, then they are not parallel. T

If two lines are not parallel, then they do not have the same slope. T

2. If you have a sibling, then you are a twin. F

If you do not have a twin, then you do not have a sibling. F

If you do not have a sibling, then you do not have a twin.

3. If two angles are congruent, then they are right angles. F

If two angles are not right angles, then they are not congruent. F

If two angles are not congruent, then they are not right angles. T

4. If a ray divides an angle into two congruent angles, then it bisects the angle. F

If a ray does not bisect an angle, then the angles is not divided into two congruent angles. T

If a ray does not divide an angle into two congruent angles, then it does not bisect the angle. T

5. 12 / 3 = 4

6. x can also equal -5

7. If you liked the movie, then you enjoyed yourself. Law of Syllogism

8. If two lines are not parallel, then they intersect at a point. Law of Syllogism

9. Sarah likes the ocean. Law of Detachment

10. Converse: If two angles are complementary, then they add to be 90°.

Biconditional: Two angles add to be 90° if and only if the angles are complementary.

11. Converse: If an angle is obtuse, then it is equal to 125°.

Biconditional: No Biconditional

12. 25 13. 85 14. 130 15. 35

16. 55 17. 32, 29 18. 8, 21 19. 152

20. 116 21. 124 22. 120° 23. 52°

24. 15° 25. 59° 26. 113° 27. 152°

28. 66° 29. 55 30. 6 31. 16

32. 55, 105 33. 43, 60