10. Converse: If a figure has a perimeter of 10 cm, then it is a rectangle with sides 2 cm and 3 cm. Inverse: If a figure is not a rectangle with sides 2 cm and 3 cm, then it does not have a perimeter of 10 cm. Contrapositive: If a figure does not have a perimeter of 10 cm, then it is not a rectangle with sides 2 cm and 3 cm. The original conditional and the contrapositive are true.

11. The hypothesis and conclusion were exchanged. The conditional should be "If it is Sunday, then you jog."

12. Both are true because a conditional and its contrapositive have the same truth value, and a converse and an inverse have the same truth value.

14. If you have never made a mistake, then you have never tried anything new.

15. If an event has a probability of 1, then that event is certain to occur.

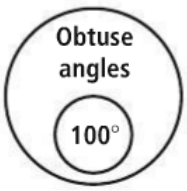
16. Yes, he is correct; both are true, because a conditional and its contrapositive have the same truth value.

17. Answers may vary. Sample: If an angle is acute, its measure is less than 90; if the measure of an angle is 85, then it is acute.

18. Answers may vary. Sample: If a person is a pitcher, then that person is a baseball player. If a person is a baseball player, then that person is an athlete. If a person is a pitcher, then that person is an athlete.

19. Natalie is correct because a conditional statement and its contrapositive have the same truth value.

20.



22.

23. If $|x| = 6$, then $x = -6$; false, $x = 6$ is a counterexample.

24. If $-y$ is positive, then y is negative; true.

25. If $x^3 < 0$, then $x < 0$; true.

26. If $x^2 > 0$, then $x < 0$; false, a counterexample is $x = 1$.

27. If you wear Snazzy sneakers, then you will look cool.

28. If two lines intersect, then they meet in exactly one point.

29. If two figures are congruent, then they have equal areas.

30. If you identify any two (distinct) points, then exactly one line goes through those two points.

31. All integers divisible by 8 are divisible by 2.

32. No squares are triangles.

33. Some musicians are students or some students are musicians.