

Geometry Chapter 2 Practice Test 2

Name: _____ Time Start: _____ Finish: _____ Total Time = _____

1. If you are 10, you should not drive a car.

Converse: _____

Inverse: _____

Contrapositive: _____

2. If you are a teacher, you are not paid well.

Converse: _____

Inverse: _____

Contrapositive: _____

3. All students love math.

Converse: _____

Inverse: _____

Contrapositive: _____

4. Consider the statement "If a figure is a square, it has four right angles."

a.) Is the converse of this statement true? _____

b.) Is the inverse of this statement true? _____

c.) Is the contrapositive of this statement true? _____

True/False

_____ 5. The converse of all dogs like to chase cats is that some dogs like to chase cats.

_____ 6. The contrapositive of "if you have a dog, you like cats" is "if you don't like cats, you love dogs."

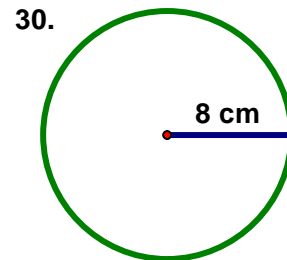
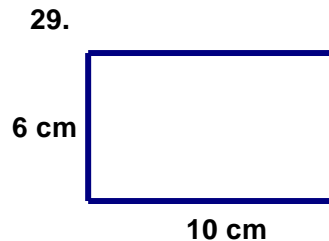
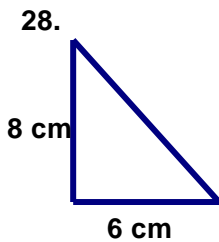
_____ 7. The inverse of "if you are old, you have a big head" is "if you don't have a big head, then you are not old."

Tell what property is demonstrated below.

- _____ 8. $AB + VG = AB + VG$
- _____ 9. If $AC = YN$ and $AC + 4 = 10$, then $YN + 4 = 10$.
- _____ 10. If $AB = XY$, then $XY = AB$
- _____ 11. If $XY - 4 = BC$, then $XY = BC + 4$.
- _____ 12. If $AB = 2$ and $2 = CY$, then $AB = CY$.
- _____ 13. If $AB - XY = BC - XY$, then $AB = BC$
- _____ 14. If $\angle XYZ + \angle ABC = \angle ABC + \angle CWH$, then $\angle XYZ = \angle CWH$.
- _____ 15. If $\angle 1 + \angle 2 = 90$ and $\angle 2 = \angle 5 + \angle 6$, then $\angle 1 + \angle 5 + \angle 6 = 90$.
- _____ 16. If $AB = 6$ and $AB + BC = XY$, then $6 + BC = XY$.
- _____ 17. There are 30 kids who play either soccer or baseball. 4 of the 30 kids play both soccer and baseball. If the soccer team has 18 members, how many kids are on the baseball team?
- _____ 18. There are 12 kids in band and 16 in chorus. If 4 of these kids are in both chorus and band, how many total kids are in either band or chorus?
- _____ 19. "If you drive in the left lane, you are not a good driver" is represented by $p \rightarrow q$. What would be the symbolic representation of "if you are a good driver, you don't drive in the left lane"?
- _____ 20. "If you like Jim, you are not a friend of Rick" is represented by $p \rightarrow q$. What would be the symbolic representation of "if you are a friend of Rick, you like Jim"?
- _____ 21. What is the contrapositive of $\sim r \rightarrow p$?
- _____ 22. What is the inverse of $\sim r \rightarrow p$?
- _____ 23. In my class, everyone plays either golf or tennis. 14 play golf and 8 play tennis. If 3 play both tennis and golf, how many kids are in my class?
- _____ 24. I have a total of 14 kids. If 10 of my kids play soccer and 12 play tennis, how many play both tennis and soccer?

- _____ 25. There are 30 kids who play either soccer or baseball. 4 of the 30 kids play both soccer and baseball. If the soccer team has 18 members, how many kids are on the baseball team?
- _____ 26. If the area of a circle is 380.13 cm^2 , what is the circumference?
- _____ 27. What is the perimeter of a triangle with the following vertices: (2, 6) (7, 4) (9, 12)

Give the perimeter (circumference for a circle) and area of each of the given shapes. (1 point each)



28. Circumference = _____
Area = _____
29. Perimeter = _____
Area = _____
30. Circumference = _____
Area = _____

- _____ 31. A rectangle has a width of $3n + 5$ and a length of $2n + 10$. If the perimeter is 70, what is the value of n ?

True/False for 32-35 and please write out the entire word neatly.

- _____ 32. The converse of “all people like pizza” is “some people like pizza.”
- _____ 33. The inverse of “if you like dogs, then you are a kid” is “if you are a kid, then you like dogs.”
- _____ 34. The contrapositive of “if you have a dog, you like cats” is “if you don’t like cats, you love dogs.”
- _____ 35. Consider the statement: “If an angle is 90 degrees, it is a right angle.” Is the converse of this statement true or false?