

## Geometry Chapter 2 Practice Test 3

Name \_\_\_\_\_

### Matching

- A. If your stomach growls, then you are hungry.
- B. If your stomach doesn't growl, then you are hungry.
- C. If your stomach doesn't growl, then you are not hungry.
- D. If you aren't hungry, then your stomach growls.
- E. If you aren't hungry, then your stomach doesn't growl.
- F. If it isn't expensive, then it isn't well made.
- G. If it isn't well made, then it isn't expensive.
- H. If it is well made, then it isn't expensive.
- I. If it is expensive, then it isn't well made.
- J. If it is well made, then it is expensive.
- K. If you don't like Mr. Hickam, you aren't a winner.
- L. If you are a winner, you don't like Mr. Hickam.
- M. If you are a winner, you like Mr. Hickam.
- N. If you aren't a winner, then you don't like Mr. Hickam.
- O. If you don't like Mr. Hickam, you are a winner.

### Statement

- 1. If you are hungry, then your stomach growls.
- 2. If it is expensive, it is well made.
- 3. If you like Mr. Hickam, you are a winner.

In 1-9, use the possible answers A-O to match the letter to the correct statement in the questions.

- \_\_\_\_\_ 1. What is the contrapositive of statement 1 above?
- \_\_\_\_\_ 2. What is the converse of statement 1 above?
- \_\_\_\_\_ 3. What is the inverse of statement 1 above?
- \_\_\_\_\_ 4. What is the converse of statement 2 above?
- \_\_\_\_\_ 5. What is the contrapositive of statement 2 above?
- \_\_\_\_\_ 6. What is the inverse of statement 2 above?
- \_\_\_\_\_ 7. What is the converse of statement 3 above?
- \_\_\_\_\_ 8. What is the contrapositive of statement 3 above?
- \_\_\_\_\_ 9. What is the inverse of statement 3 above?
- \_\_\_\_\_ 10. "If you like dogs, you like cats" is represented by  $p \rightarrow q$ . What would be the symbolic representation of "if you don't like dogs, you like cats"?

- \_\_\_\_\_ 11. “If  $x$  is odd, then  $3 \cdot x$  is even” is represented by  $p \rightarrow q$ . What is the symbolic representation of “if  $3 \cdot x$  is not even, then  $x$  is not odd”?
- \_\_\_\_\_ 12. “If you don’t like cold weather, then you will love Florida” is represented by  $p \rightarrow q$ . What is the symbolic representation of “If you don’t love Florida, you will like cold weather”?
- \_\_\_\_\_ 13. Let  $p$  represent  $\sqrt{11} = z$ , and let  $q$  represent  $z$  is a rational number. What is a symbolic representation of the statement:  
“If  $\sqrt{11} = z$ , then  $z$  is not a rational number”?
- \_\_\_\_\_ 14. What is the contrapositive of  $r \rightarrow \sim p$ ?
- \_\_\_\_\_ 15. What is the inverse of  $\sim r \rightarrow p$ ?
- \_\_\_\_\_ 16. Rounded to the nearest whole number, what is the circumference of a circle with a radius of 18 cm?

For 34-36, use symbolic language to represent each statement if

$p$ :  $\angle A$  is acute

$q$ :  $\angle B$  is acute

$n$ :  $\angle C$  is obtuse

- \_\_\_\_\_ 17.  $\angle C$  is obtuse. Therefore,  $\angle A$  is acute
- \_\_\_\_\_ 18. If  $\angle A$  is acute or  $\angle B$  is acute, then  $\angle C$  is not obtuse.
- \_\_\_\_\_ 19. If  $\angle C$  is obtuse, then  $\angle A$  is acute and  $\angle B$  is acute.

Figure 1

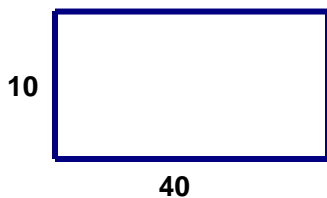


Figure 2

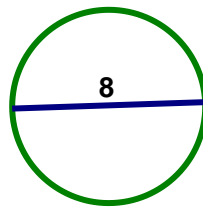
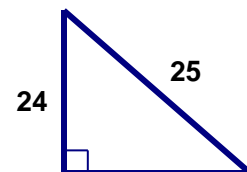


Figure 3



- \_\_\_\_\_ 20. What is the area of Figure 1?
- \_\_\_\_\_ 21. What is the area of Figure 2?
- \_\_\_\_\_ 22. What is the circumference of Figure 2?
- \_\_\_\_\_ 23. What is the perimeter of Figure 3?
- \_\_\_\_\_ 24. What is the area of Figure 3?
- \_\_\_\_\_ 25. What is the area of Figure 1?