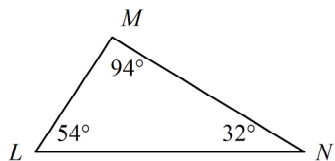


Geometry Chapter 4 SAMPLE**Multiple Choice**

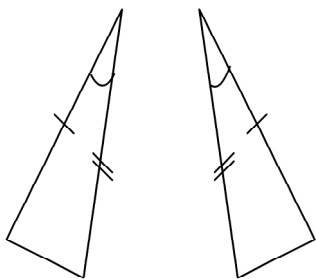
Identify the choice that best completes the statement or answers the question.

- _____ 1. Which of the following is an example of a true conditional statement?
- If two triangle are right triangles, then the triangles are congruent.
 - If a figure has 4 sides, then it is a parallelogram.
 - If an angle is obtuse, then it has a measurement less than 90° .
 - If a figure is a square, then it is a rectangle.
- _____ 2. Sandy's friend Oliver told her, "If I am wet, then it is raining outside." Sandy does not believe his statement is always true. Which of the following statements could she *not* use as a counterexample?
- Oliver forgot his umbrella and got caught in the rain.
 - Oliver just finished swimming.
 - Oliver just took a shower.
 - Oliver was water skiing.
- _____ 3. Which figures must always be congruent?
- | | |
|--------------------------------------|------------------------------------|
| a. two right triangles | c. two rectangles with equal areas |
| b. two squares with equal perimeters | d. two isosceles triangles |
- _____ 4. Alaina is trying to prove that two triangles are congruent. She knows that two pairs of sides are congruent. Which of the following would *not* help her prove that the triangles are congruent?
- another pair of congruent sides
 - included angles that are congruent
 - two pairs of congruent angles
 - a pair of non-included angles that are congruent
- _____ 5. Two regular octagons are always:
- | | |
|--------------|-------------|
| a. similar | c. equal |
| b. congruent | d. adjacent |
- _____ 6. Jose's teacher uses an overhead projector when he teaches geometry class. He draws a hexagon on the projector and Jose sees it up on the board. Which is always true about the hexagon Jose sees compared to the original hexagon?
- It is smaller than the original hexagon.
 - It is similar to the original hexagon.
 - It is congruent to the original hexagon.
 - It has a different shape than the original hexagon.

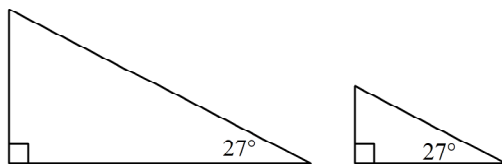
15. List the sides in order from largest to smallest.



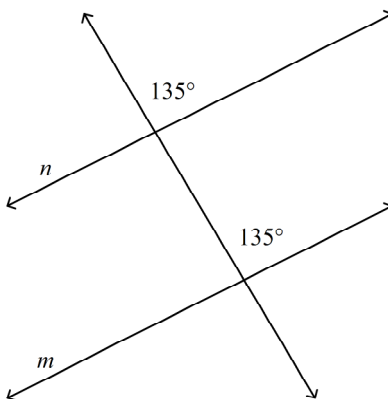
16. Which congruent theorem can be used to prove the triangles below congruent?



17. What similarity theorem can be used to prove the triangles below similar?



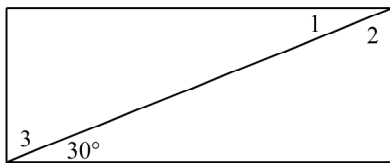
18. Using only the given information in the diagram below, what reason makes the lines m and n parallel?



19. From the given true statements, draw a valid conclusion.

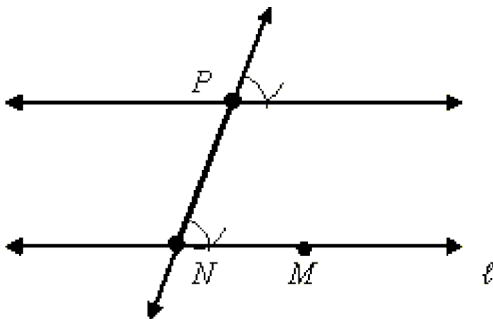
If Kegan misses practice, she will not play in the game.
If Kegan does not play in the game, she will not score.
Kegan missed practice.

20. The sum of the interior angles of a regular polygon is $1,080^\circ$. What is the name of the regular polygon?
21. Rosa knows that two adjacent angles in a regular polygon are both right angles. What is the *most* descriptive name Rosa can give for the polygon?
22. Use the rectangle shown below.



What is the measure of $\angle 2$?

23. Kobe made the construction below to construct parallel lines. What reason did he use, by doing the construction, to justify that the lines are parallel?



Geometry Chapter 4 SAMPLE Answer Section

MULTIPLE CHOICE

- | | | |
|------------|--------|-------------------|
| 1. ANS: D | PTS: 1 | STA: CA GEOM 3.0 |
| 2. ANS: A | PTS: 1 | STA: CA GEOM 3.0 |
| 3. ANS: B | PTS: 1 | STA: CA GEOM 5.0 |
| 4. ANS: D | PTS: 1 | STA: CA GEOM 5.0 |
| 5. ANS: A | PTS: 1 | STA: CA GEOM 5.0 |
| 6. ANS: B | PTS: 1 | STA: CA GEOM 4.0 |
| 7. ANS: C | PTS: 1 | STA: CA GEOM 4.0 |
| 8. ANS: C | PTS: 1 | STA: CA GEOM 4.0 |
| 9. ANS: D | PTS: 1 | STA: CA GEOM 1.0 |
| 10. ANS: C | PTS: 1 | STA: CA GEOM 1.0 |
| 11. ANS: D | PTS: 1 | STA: CA GEOM 12.0 |

SHORT ANSWER

12. ANS:
scalene triangle
- PTS: 1 STA: CA GEOM 3.0
13. ANS:
If three points do not form a triangle, then they are noncollinear.
- PTS: 1 STA: CA GEOM 3.0
14. ANS:
 $\angle Y$
- PTS: 1 STA: CA GEOM 6.0
15. ANS:
 $\overline{LN}, \overline{MN}, \overline{LM}$
- PTS: 1 STA: CA GEOM 6.0
16. ANS:
SAS
- PTS: 1 STA: CA GEOM 4.0
17. ANS:
AA
- PTS: 1 STA: CA GEOM 4.0

18. ANS:
If corresponding angles are congruent, then the lines are parallel.

PTS: 1 STA: CA GEOM 7.0

19. ANS:
Kegan did not score.

PTS: 1 STA: CA GEOM 1.0

20. ANS:
octagon

PTS: 1 STA: CA GEOM 12.0

21. ANS:
square

PTS: 1 STA: CA GEOM 13.0

22. ANS:
60°

PTS: 1 STA: CA GEOM 13.0

23. ANS:
congruent corresponding angles

PTS: 1 STA: CA GEOM 16.0