

# Level M - Form 1 - Applied Mathematics: Geometry and Spatial Sense

## Sample Question

Which figure is a triangle?

A



B



C



D

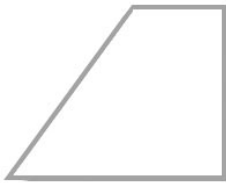


# Level M - Form 1 - Applied Mathematics: Geometry and Spatial Sense

1. Which figure is congruent to the shaded figure?



A



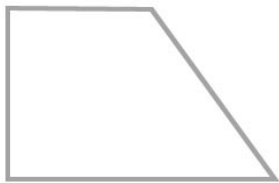
B



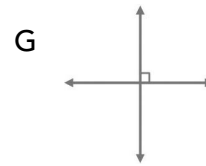
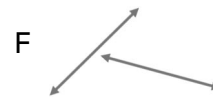
C



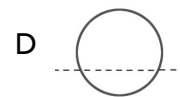
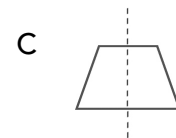
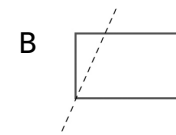
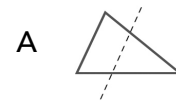
D



2. Which pair of lines is perpendicular?



3. Which diagram shows a line of symmetry for the figure?



4. How many faces does a cube have?

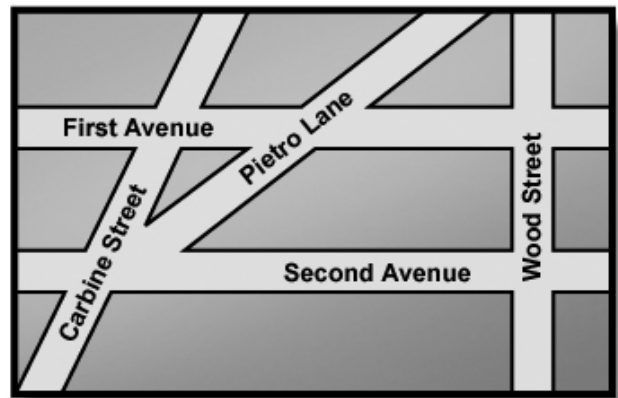
- F 3
- G 4
- H 6
- J 8

5. If you rotate this square  $180^\circ$ , what would the square look like?



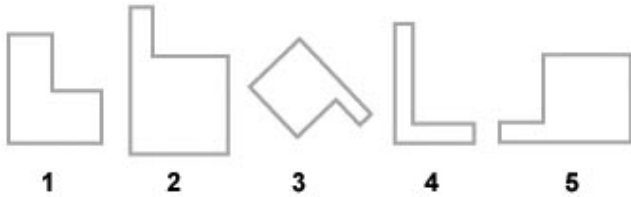
- A
- B
- C
- D

Study the map. Then do Numbers 6 through 7.



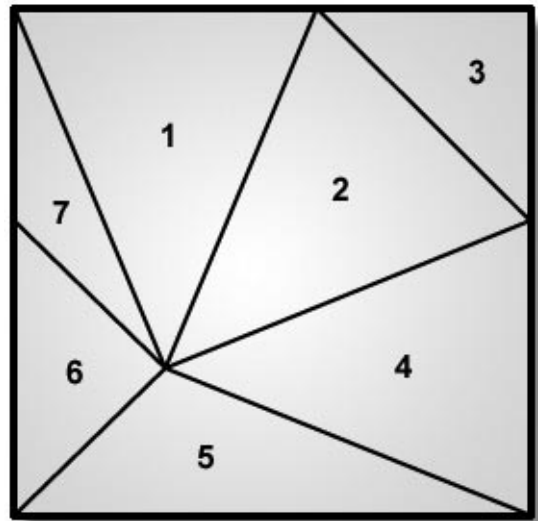
6. Which pair of streets is parallel?
- F Wood Street and Second Avenue
  - G First Avenue and Second Avenue
  - H Pietro Lane and Carbine Street
  - J Carbine Street and Wood Street
7. What is the relationship between Second Avenue and Wood Street?
- A They are perpendicular.
  - B They are parallel.
  - C They intersect at a  $45^\circ$  angle.
  - D They form an obtuse angle.

8. Which figures are similar to the figure in the box?



- F only figure 2
- G figures 4 and 5
- H figures 2, 3, and 5
- J figures 1 and 4

9. Which triangles in this figure are obtuse?

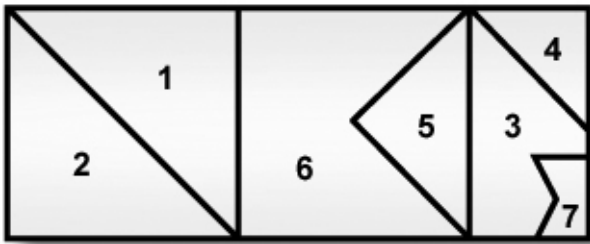


- A triangles 2 and 3
- B triangles 4 and 6
- C triangles 5 and 7
- D triangles 1, 2, 4 and 6

10. What shape is the base of a cone?

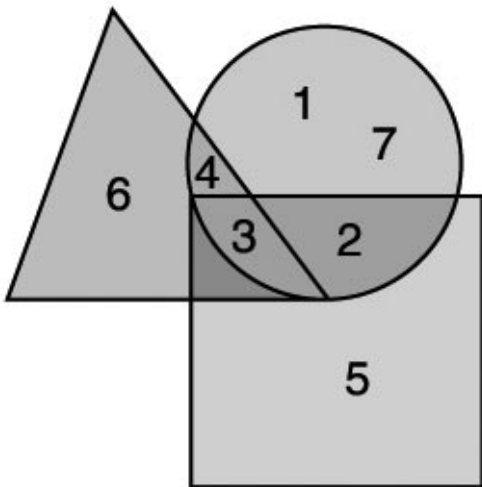
- F circle
- G square
- H triangle
- J rectangle

11. Which parts of this figure are congruent?



- A parts 2 and 4
- B parts 6 and 7
- C parts 1, 2, 4, and 5
- D parts 1 and 2

12. Which number is inside the triangle and the circle, but outside the square?

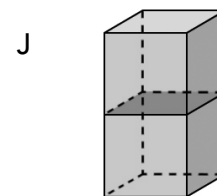
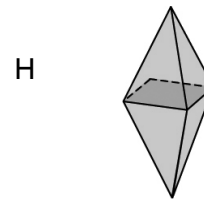
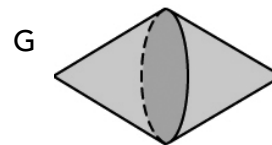
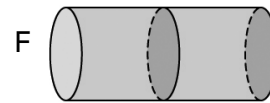


- F 2
- G 3
- H 4
- J 6

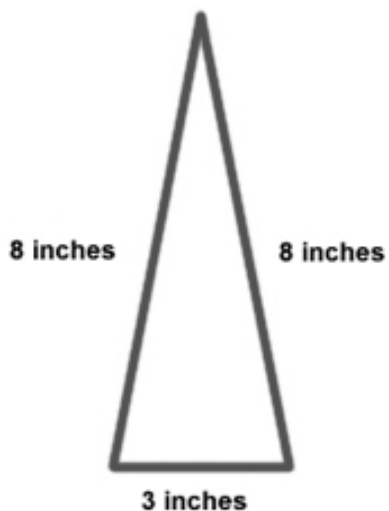
13. If two lines are parallel, they will

- A form an obtuse angle
- B form an acute angle
- C intersect at a  $90^\circ$  angle
- D never intersect

14. Which object is made of two cones?

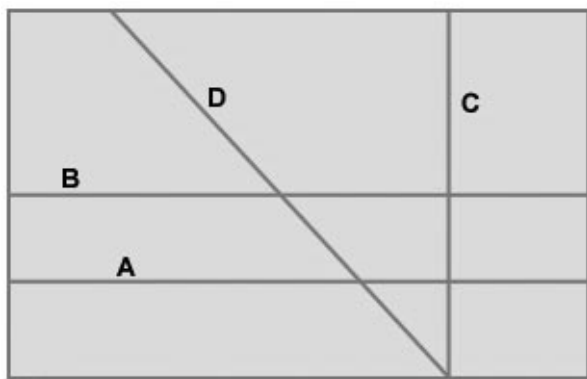


15. What type of triangle is shown here?



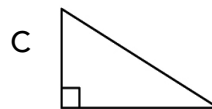
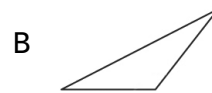
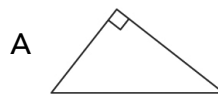
- A scalene
- B isosceles
- C equilateral
- D right

16. Which line segment shows the symmetry of the rectangle?

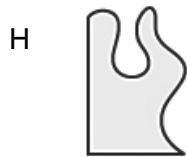
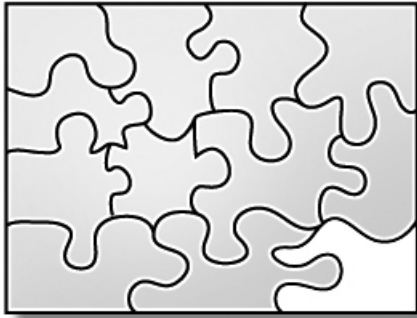


- F segment A
- G segment B
- H segment C
- J segment D

17. Which triangle is acute?



18. Which of these is the missing piece of the puzzle?



19. How many lines of symmetry does a square have?

- A 1
- B 2
- C 4
- D 8

20. What is the sum of the angle measures of a triangle?

- F  $150^\circ$
- G  $180^\circ$
- H  $200^\circ$
- J  $360^\circ$