

Independent Practice

10.4

NAME _____

Module 10 Coordinate Geometry and Spatial Visualization
Lesson 4 Three-Dimensional Shapes

Use the cube for Problems 1 – 4.

1. Complete the list of vertices.

$A, B,$

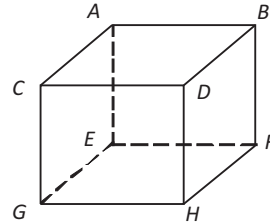
2. Complete the list of edges.

$\overline{AB}, \overline{AC},$

3. Complete the list of faces.

$ABDC, EFHG,$

4. Classify the cube based on its number of sides.



Use the pyramid for Problems 5 – 8.

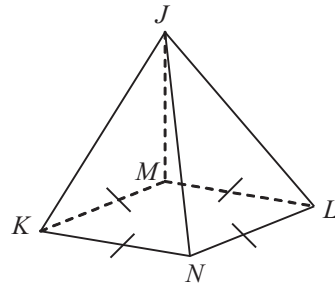
5. Classify the pyramid.

6. Complete the list of lateral faces.

$\triangle JMK, \triangle JML,$

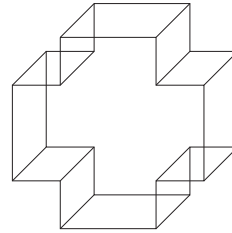
7. Name the vertex of the pyramid.

8. Is the pyramid convex or nonconvex?



Use the polyhedron for Problems 9 – 11.

9. How many vertices are there?
10. How many faces are there?
11. Is the polyhedron convex or nonconvex?



Tell if each statement is *true* or *false*.

12. An octahedron has eight congruent faces.
13. A triangular prism can have four faces.
14. A triangular pyramid can have four faces.
15. All radii of a sphere are congruent.
16. A cylinder is a polyhedron.

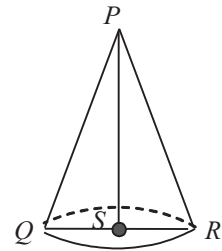
Tell if each object is shaped like a sphere. Write *yes* or *no*.

- | | |
|-----------------|-----------|
| 17. Egg | 18. Globe |
| 19. CD | 20. Plate |
| 21. Tennis ball | |

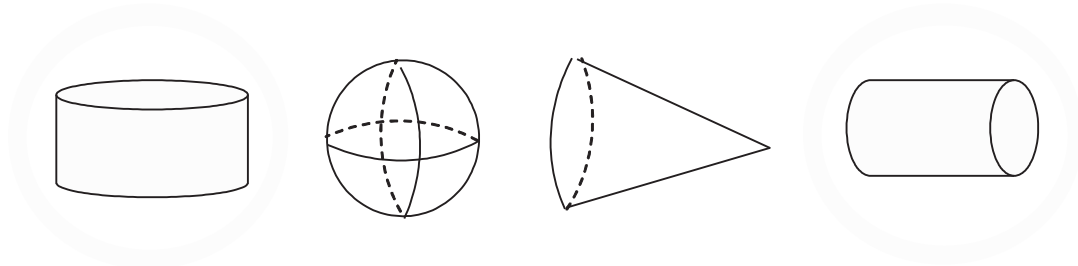
NAME _____

Module 10 **Coordinate Geometry and Spatial Visualization**
Lesson 4 **Three-Dimensional Shapes**

Use the cone for Problems 22-24.

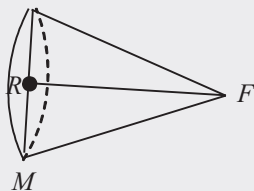


- 22. Name the vertex of the cone.
- 23. Name the altitude of the cone.
- 24. Name the radii of the cone.
- 25. Circle the figures that are cylinders.



Journal

- 1. How are prisms and pyramids alike? How are they different?
- 2. What must be true about a solid for it to be a Platonic solid?
- 3. In the figure below, explain why \overline{FR} is the altitude of the cone rather than \overline{FM} .



Cumulative Review

Name the quadrant in which each point is located.

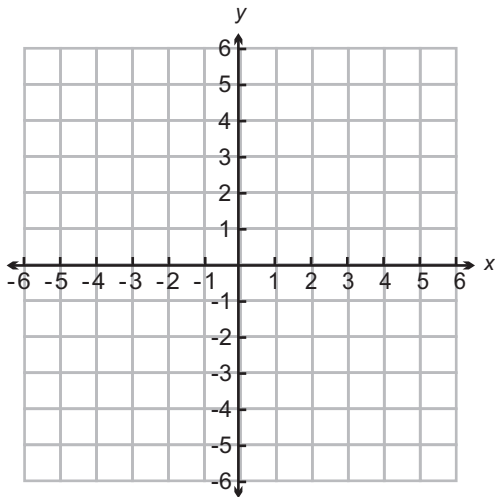
1. $(-3, 8)$
2. $(1, -1)$

Name the axis on which each point is located.

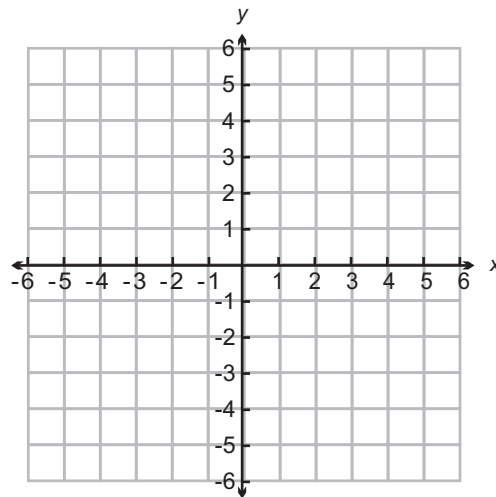
3. $(-6, 0)$
4. $(0, 8)$

Graph the line that contains the given pair of points. Then, find the slope of the line.

5. $(1, 2)$ and $(4, -3)$



6. $(-3, -3)$ and $(2, 0)$



7. What is the slope of a line that is perpendicular to a line whose slope is 4?

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**The distance from point X to point Y on a number line is 11 units.
The coordinate of point X is -7 .**

8. What are the possible coordinates for point Y ?
9. What are the possible coordinates for the midpoint of \overline{XY} ?