NAME_____ DATE_____

Module Test B — Module 10

Fill in the blanks with one of the following words:

***x*-axis** ***y*-axis** **prism** **pyramid** **cone**
cylinder **sphere** **dodecahedron** **icosahedron**

1. A(n) _____ is the set of all points equidistant from a given point.
sphere

2. A(n) _____ is a solid with two circular bases.
cylinder

3. A polyhedron with one base and triangular lateral faces is a(n) _____.
pyramid

4. The point (0, -3) is on the _____.
***y*-axis**

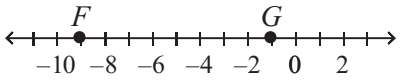
5. A Platonic solid with 20 faces is a(n) _____.
icosahedron

Circle the correct answer for each problem.

6. Which ordered pair is located in Quadrant IV?

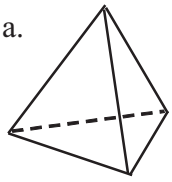
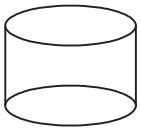
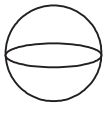
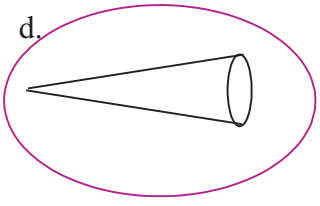
a. (-2, -6) b. (-2, 6) c. (2, -6) d. (2, 6)
(2, -6)

7. What is the distance from point *F* to point *G*?



a. 8 b. 7 c. -7 d. -8
8

8. Which is a cone?

a.  b.  c.  d. 

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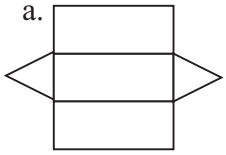
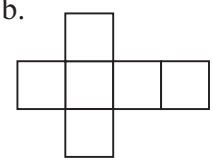
9. The slope of line h is 2. What is the slope of any line perpendicular to line h?

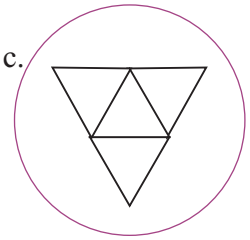
a. -2 b. $-\frac{1}{2}$ c. 2 d. $\frac{1}{2}$

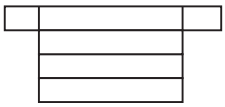
$-\frac{1}{2}$

10. Which net is *not* a net of a prism?

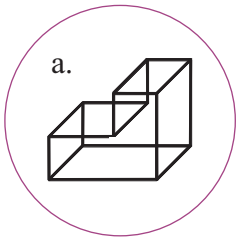
a. 

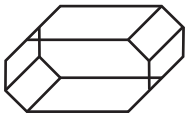
b. 

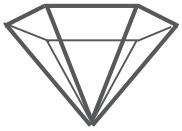
c. 

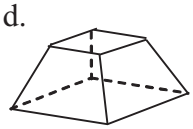
d. 

11. Which polyhedron is nonconvex?

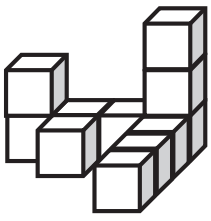
a. 

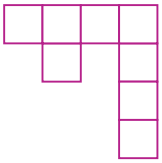
b. 

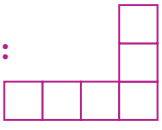
c. 

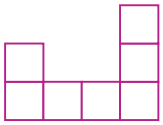
d. 

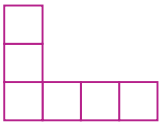
12. Draw the front, top, right, and left side views.



Top: 

Right: 

Front: 

Left: 

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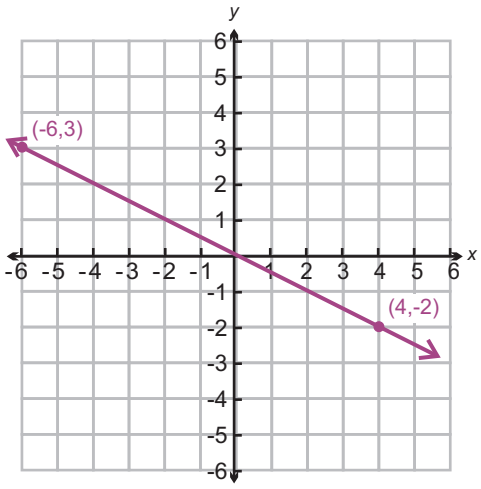
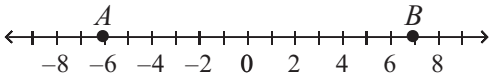
13. Graph the line with points (-6, 3) and (4, -2). Find the slope of the line and the slope of any line perpendicular to it.



Slope of line: $-\frac{1}{2}$

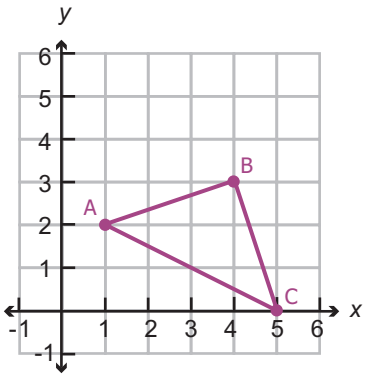
Slope of any perpendicular line: 2

14. Explain how to find the coordinate of the midpoint of $\overline{AB}$.



First, find the sum of the coordinates of *A* and *B*: -6 + 7 = 1. Then divide this sum by two: $\frac{1}{2}$. The coordinate of the midpoint of $\overline{AB}$ is $\frac{1}{2}$.

15. Plot the points *A*(1, 2), *B*(4, 3), and *C*(5, 0). Show how to use slope and the distance between points to classify the triangle.



The slope of $\overline{AB}$ is $\frac{1}{3}$. The slope $\overline{BC}$ is -3.

Because the slopes are opposite reciprocals, the segments are perpendicular, and the angle is a right angle. The triangle is a right triangle.

Use the Pythagorean Theorem to find the length of $\overline{AB}$: $1^2 + 3^2 = c^2$, $10 = c^2$, $c = \sqrt{10}$. Find the length of $\overline{BC}$: $1^2 + 3^2 = c^2$, $10 = c^2$, $c = \sqrt{10}$. Because the legs are congruent, the triangle is a right isosceles triangle.

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