

Module Test A Module 10

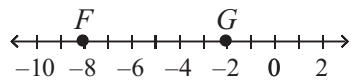
Fill in the blanks with one of the following words:

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

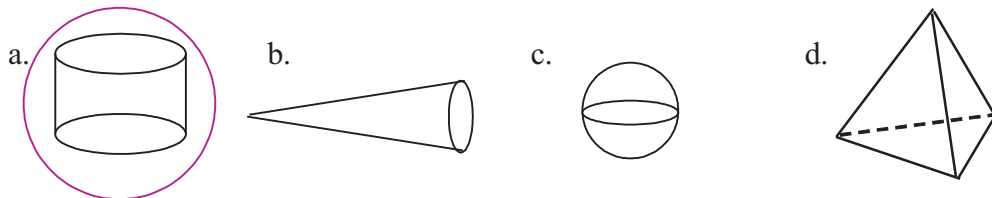
1. A _____ is a solid with one circular base.
cone
2. The set of all points equidistant from a given point is a(n) _____.
sphere
3. A polyhedron with two congruent parallel bases is a(n) _____.
prism
4. The point (-3, 0) is on the _____.
x-axis
5. A Platonic solid with 12 faces is a(n) _____.
dodecahedron

Circle the correct answer for each problem.

6. Which ordered pair is located in Quadrant II?
 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. -6 b. -5 c. 5 d. 6
6

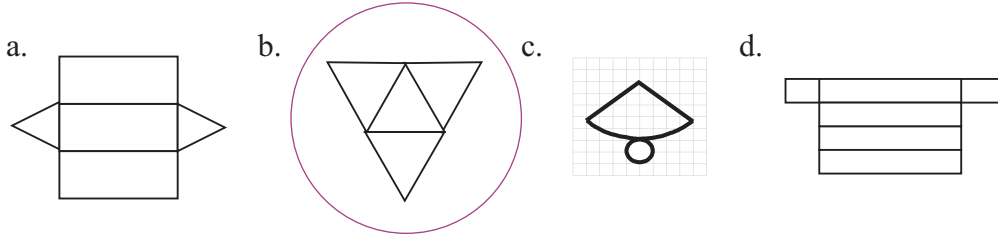
8. Which is a cylinder?



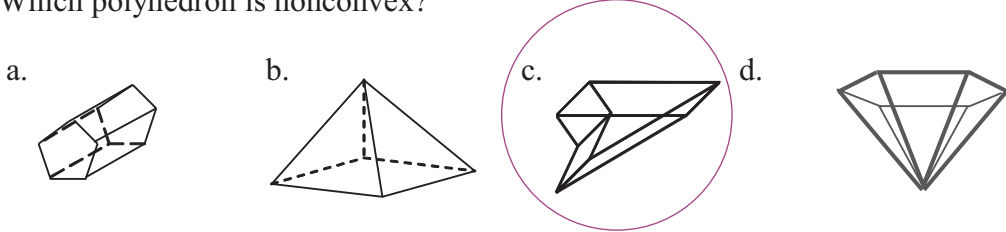
9. The slope of line h is -3 . What is the slope of any line perpendicular to line h ?

- a. -3 b. $-\frac{1}{3}$ c. 3 d. $\frac{1}{3}$
 $\frac{1}{3}$

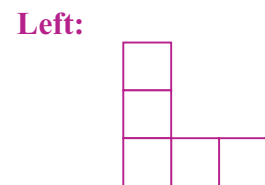
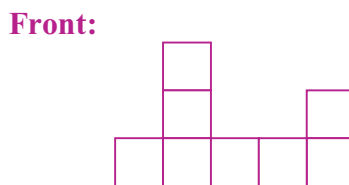
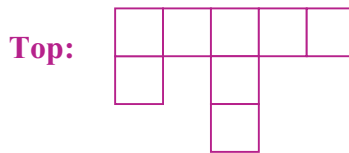
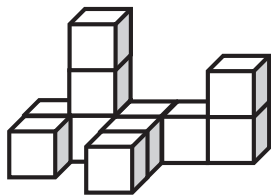
10. Which is the net of a pyramid?



11. Which polyhedron is nonconvex?



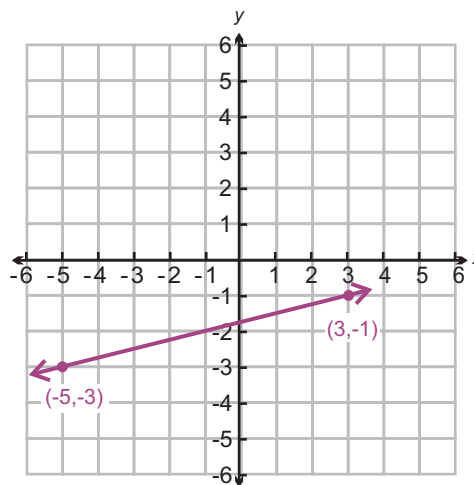
12. Draw the front, top, right, and left side views.



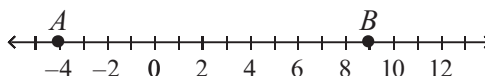
13. Graph the line with points $(-5, -3)$ and $(3, -1)$. Find the slope of the line and the slope of any line perpendicular to it.

Slope of line: $\frac{1}{4}$

Slope of any perpendicular line: -4



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

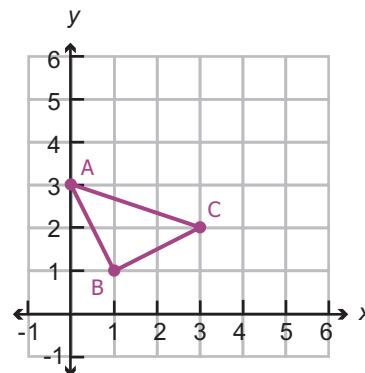


First, find the sum of the coordinates of A and B : $-4 + 9 = 5$. Then divide this sum by two: $\frac{5}{2} = 2\frac{1}{2}$. The coordinate of the midpoint of \overline{AB} is $2\frac{1}{2}$.

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

The slope of \overline{AB} is -2 . The slope \overline{BC} is $\frac{1}{2}$.

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} : $1^2 + 2^2 = c^2$, $5 = c^2$, $c = \sqrt{5}$. Then, find the length of \overline{BC} :

$1^2 + 2^2 = c^2$, $5 = c^2$, $c = \sqrt{5}$. Because the legs are congruent, the triangle is a right isosceles triangle.

