

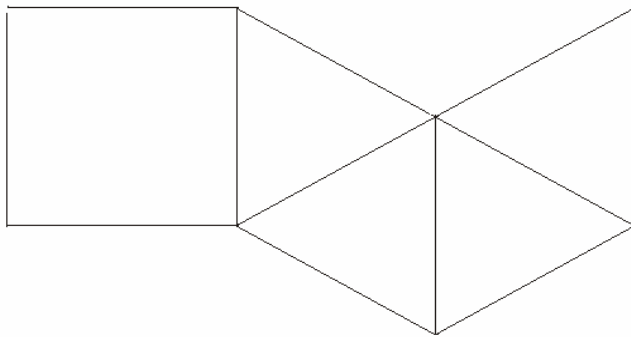
1. (5) On a recent trip to Little Rock, Jason noticed that he passed mile marker 72 at 9:00 am and mile marker 106 at 9:30 am. How many miles did Jason travel during this 30-minute period?

\_\_\_\_\_

2. (5) What is the distance between the two points located at (3,6) and (7,9) on a coordinate plane?

\_\_\_\_\_

3. (3) The net below may be folded into which 3-dimensional object?

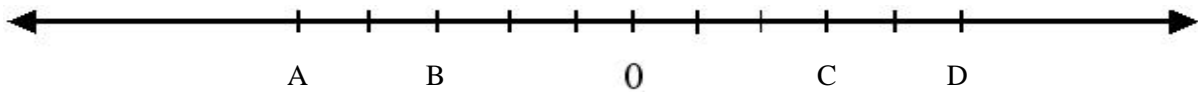


\_\_\_\_\_

4. (5) What is the midpoint of the line segment with endpoints (-3, 5) and (7, -5)?

\_\_\_\_\_

5. (3) Using the number line shown below, what is the distance between points C and B?



\_\_\_\_\_

6. (2) Which of the following linear equations is in slope-intercept form?

- a.  $3y - 2x = 6 + 6x$
- b.  $y = 3x + 2$
- c.  $\frac{1}{3}y - \frac{2}{3} = x$
- d.  $3y - 9x = 6$

\_\_\_\_\_

7. (2) If line AB has a midpoint at C, which of the following is true?
- a. Line AC > Line BC
  - b. Line AB < Line AC
  - c. Line AC  $\cong$  Line CB
  - d. Line AB  $\cong$  Line AC

\_\_\_\_\_

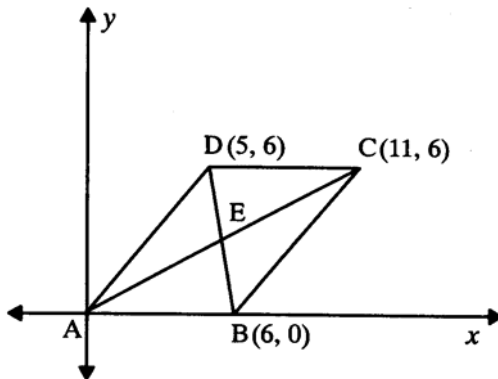
8. (3) What is the slope of the equation of a line perpendicular to the graph of  $y = \frac{2}{3}x + 7$ ?

\_\_\_\_\_

9. (5) L, M, and N are points on a number line. M is the midpoint of Line LN. If the coordinate of L is 3 and the coordinate of n is 22, what is the coordinate of M?

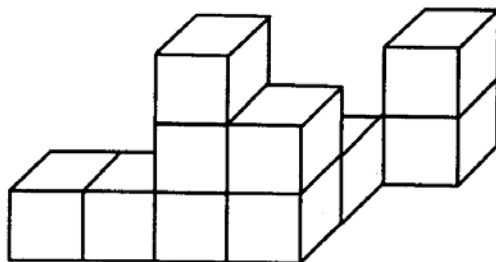
\_\_\_\_\_

10. (5) The diagonals of the figure shown below bisect each other at point E. What are the coordinates of point E?



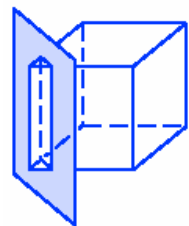
\_\_\_\_\_

11. (3) Use square dot paper to draw the right-side view of the 3-dimensional figure shown below.



12. (3) What shape is created by the intersection of the cube and the plane?

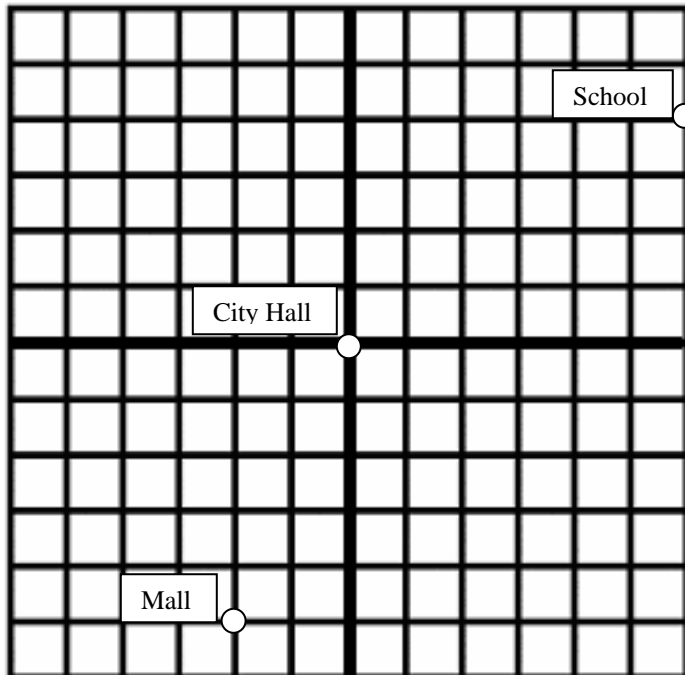
\_\_\_\_\_



13. The city council’s plan for development in New Town is shown in the coordinate system below.
- (3)New Town Hospital will be located 2 miles west and 5 miles north of City Hall. On the graph, plot the position and label the hospital on the coordinate system. Write the coordinates of the hospital near its position on the coordinate system.
  - (5)Find the shortest distance between the school and the mall. Explain the procedure you used and show all of your work. Round to the nearest hundredth.
  - (5)A post office will be located halfway between the mall and the school. Find the coordinates for the post office. Show your work. Plot the point at which the post office is located on the coordinate system and write the words “post office” near the point.

\_\_\_\_\_

\_\_\_\_\_



Note: Each square represents 1 square mile