

Section 1 Jeopardy

Points, Lines,
and Planes

Distance
and
Midpoint

Partitioning
Points

Parallel and
Perpendicular
Lines

Basic
Constructions

100

100

100

100

100

200

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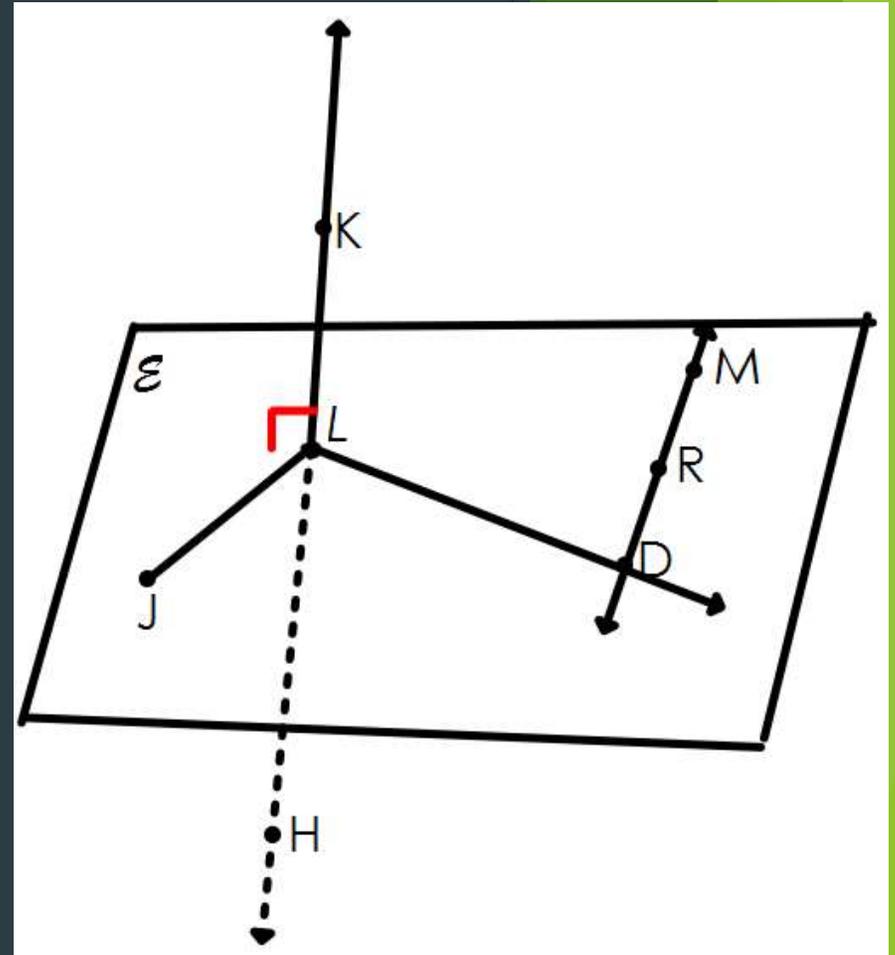
500

Points, Lines, and Planes - 100

Name the plane two different ways.

ANSWER:

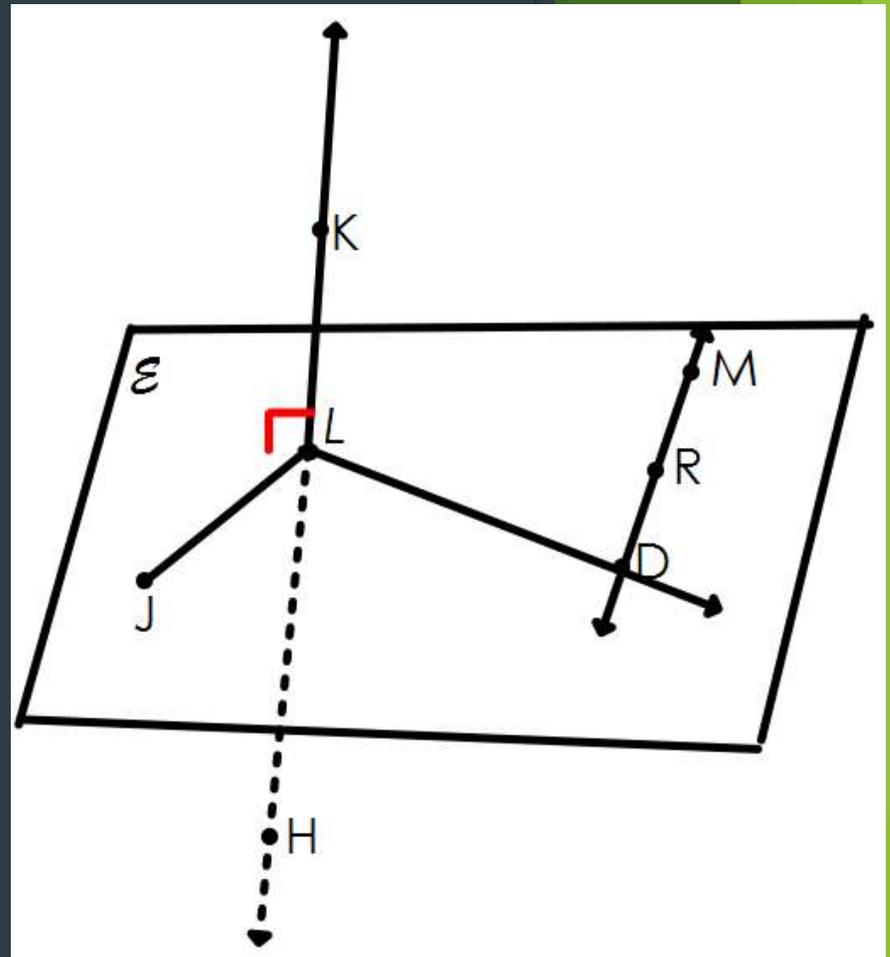
Answers vary



Points, Lines, and Planes - 200

Identify a line and name it two different ways.

ANSWER:
Answers vary



Points, Lines, and Planes - 300

What does the postulate say about any two collinear points?

ANSWER:

Through any two collinear points there exists exactly one line.



Points, Lines, and Planes - 400

What does the postulate say about three non-collinear points?

ANSWER:

What is 'through any three non-collinear points, there exists a plane.'



Points, Lines, and Planes - 500

Name all of the postulates that relate to points, lines, and planes

ANSWER:

1. Through any two points there is exactly one line.
2. Through any three non-collinear points there is exactly one plane.
3. If two points lie in a plane, then the line containing those points will also lie in the plane.
4. If two lines intersect, then they intersect in exactly one point.
5. If two planes intersect, then they intersect in exactly one line.
6. Given any point on a plane, there is one and only one line perpendicular to the plane through that point.



Distance and Midpoint - 100

Point L is located at $(-5, 19)$ and point M is located at $(2, -6)$.

- Find the midpoint of segment LM.
- Find the distance of segment LM. Round to the nearest hundredth.
- Find endpoint N if point L is an endpoint, and point M is now considered the midpoint.

ANSWER:

- What is $(-\frac{3}{2}, \frac{13}{2})$.
- What is approximately 25.96 units.
- What is N $(9, -31)$.



Distance and Midpoint - 200

On a coordinate graph, Crystal's house is located at $(8,7)$. Megan's house is located at $(9,4)$, and the city pool is located at $(-1,3)$. Which girl lives closer to the city pool? Justify your answer.

ANSWER:

Who is Crystal.

Crystal's house is approx. 9.85 units away and Megan's house is approx. 10.05 units away.



Distance and Midpoint - 300

Chris and his friend want to meet at the halfway point between their houses at a coffee shop. If Chris has to walk $(8x-11)$ ft and his friend has to walk $(10x-51)$ ft, how far do each of them walk to the coffee shop?

ANSWER:

What is 149 ft



Distance and Midpoint - 400

What is the difference in length of the following segments:

\overline{LR} : L(4,3) and R(10, -2)

\overline{EK} : E(2,1) and K(8,5)

ANSWER:

What is approximately 0.6



Distance and Midpoint - 500

A school and a library are 6.74 yards apart on a straight path. The store is the halfway point between the school and library on the same path. Draw a representation of the problem and label the school, library, and store. Then find the distance between the store and library.

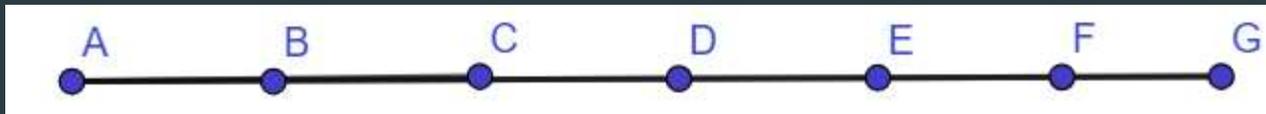


ANSWER:

What is 3.37 yds



Partitioning Segments - 100

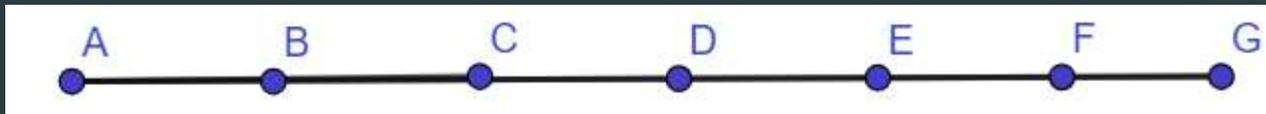


What is the ratio of $\overline{AC}:\overline{CG}$?

ANSWER:
What is 2:4 or 1:2



Partitioning Segments - 200



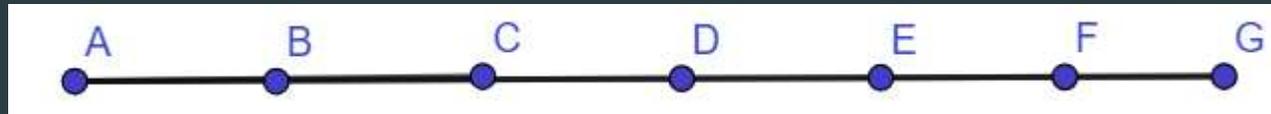
Is the ratio $AD:AG$ part to part OR part to whole?

ANSWER:

What is Part to Whole



Partitioning Segments - 300



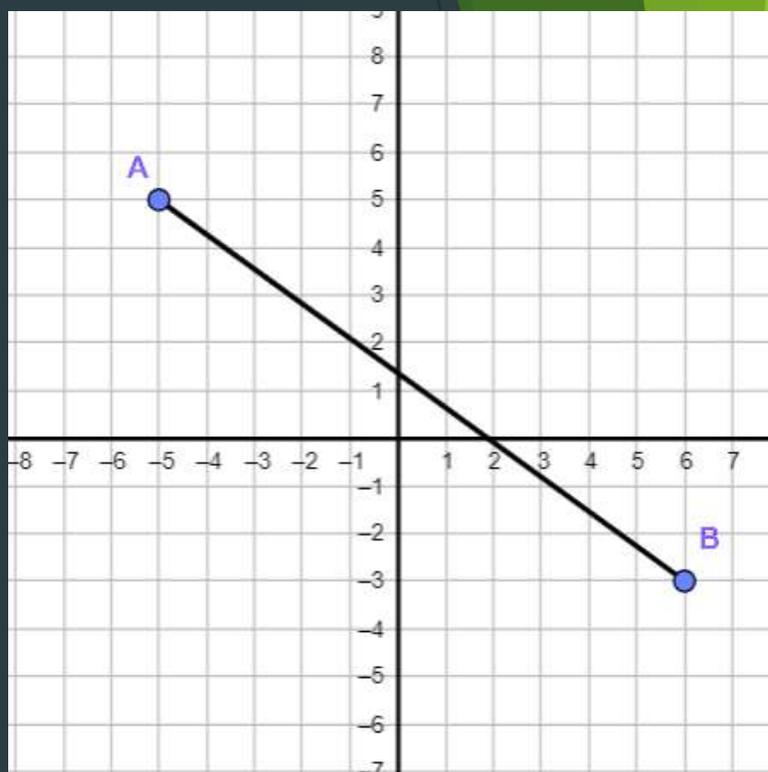
What is the point that partitions \overline{AG} into a 4:2 ratio?

ANSWER:
What is point E.



Partitioning Segments - 400

Given A (-5,5) and B (6, -3),
determine the coordinates of
point P on directed line
segment \overline{AB} that partitions in
the ratio of 1:3.



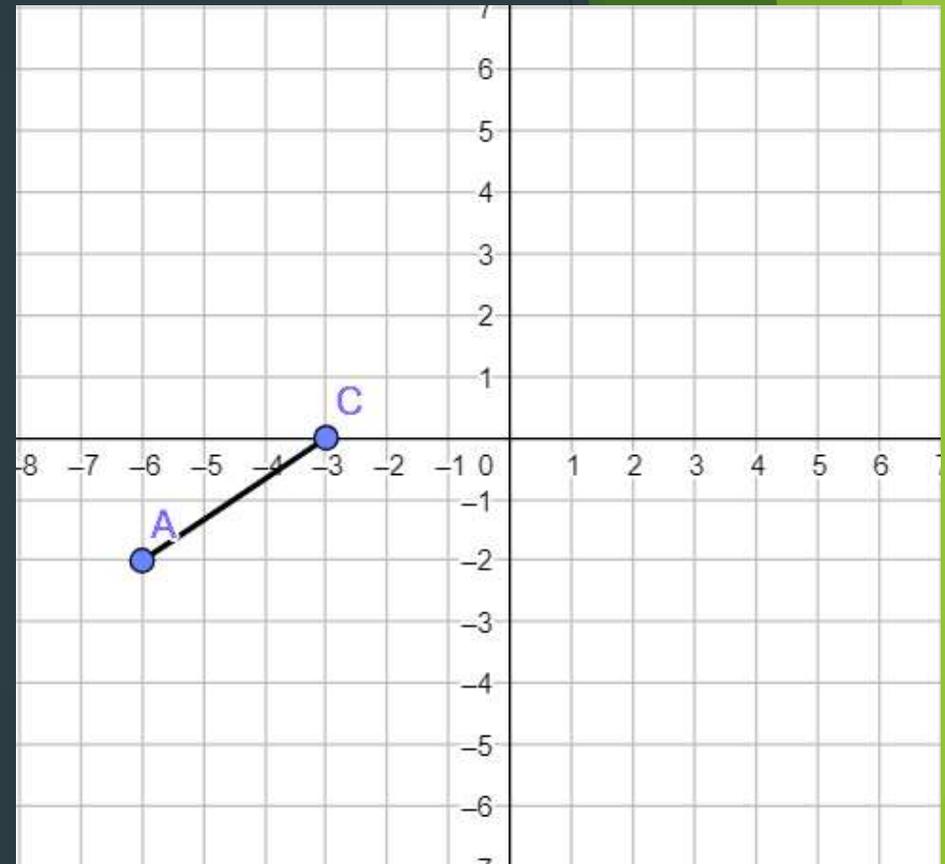
ANSWER:

What is P(-2.25, 3)



Partitioning Segments - 500

Given endpoint A (-6, -2)
and partitioning point C(-3,0),
find the location of endpoint
B so that $AC:AB = \frac{1}{4}$



ANSWER:
What is (6,6)



Parallel and Perpendicular Lines - 100

What is the difference in slopes between parallel and perpendicular lines? Justify your answer.

ANSWER:

Parallel lines have the same slope and perpendicular lines have opposite, reciprocal slopes.



Parallel and Perpendicular Lines - 200

Write the equation of the line parallel to:

$$y = -2x + 4$$

ANSWER:

What is (answers vary)



Parallel and Perpendicular Lines

- 300

Determine whether the following pair of lines is parallel, perpendicular, or neither:

$$y = \frac{1}{2}x + 2$$
$$2x + y = 8$$

ANSWER:

What is perpendicular lines



Parallel and Perpendicular Lines - 400

Write an equation of the line that passes through point G and is perpendicular to the line with the given equation.

$$G (6,5) \text{ and } y = -3x - 2$$

ANSWER:

$$\text{What is } y = \frac{1}{3}x + 3$$

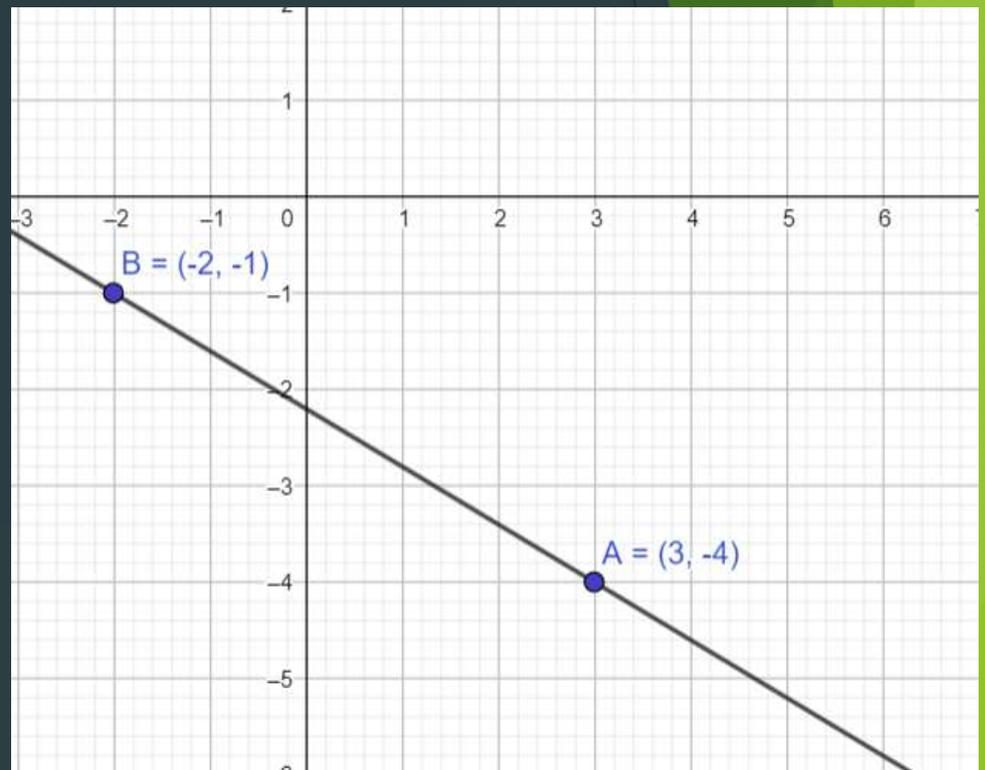


Parallel and Perpendicular Lines - 500

Write an equation that is parallel to the given line and passes through J(4,1).

ANSWER:

$$\text{What is } y = -\frac{3}{5}x + \frac{17}{5}$$



Basic Constructions - 100

List two reasons to do a construction

ANSWER:

What is 'to copy and to bisect'
(other answers may vary)



Basic Constructions - 200

On a sheet of paper, draw a segment and label the two endpoints A and B. Now, construct a copy of \overline{AB} .

ANSWER:

**walk around to view the construction



Basic Constructions - 300

On a sheet of paper, draw a segment and label the endpoints C and D. Construct a perpendicular bisector of \overline{CD} .

ANSWER:

**walk around the room to check



Basic Constructions - 400

What are the two characteristics that should be identified to prove that a segment has a perpendicular bisector?

ANSWER:

What is 'the segments intersect and form a right angle, and each piece of the bisected segment is equal in length'



Basic Constructions - 500

Draw triangle ABC. Reconstruct the triangle using only a compass. Label it triangle PQR.

ANSWER:

**walk around the room to check

