Student Name: _____ Date: _____

Module 1 TEST: Geometric Basics

---

1) What is the length of $\overline{AZ}$? Use the following information:
A is between Y and Z, $YA = 22$, $AZ = 16x$, and $YZ = 166$.

- ○ 9
- ○ 22
- ○ 144
- ○ 188

2) Use the following information to find x. Write the value of the variable.

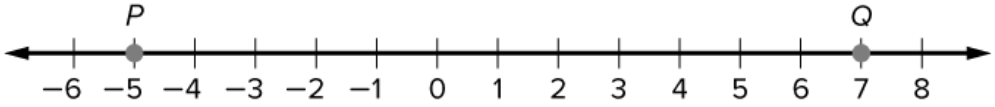
- B is between A and C;
- $AB = 3x + 6$;
- $BC = 15x - 2$; and
- $\overline{AB} \cong \overline{BC}$.

3) Amy is bisecting a line segment. What is the missing step?

1. Place the compass at one end of line segment.
2. Adjust the compass to slightly longer than half the line segment length.
3. Draw arcs above and below the segment.
4.
5. Place ruler where the arcs cross, and draw the line segment.

- ○ Place a point on each arc.
- ○ Keeping the same compass width, draw arcs from other end of segment.
- ○ Adjusting the compass to a slightly longer width, draw arcs from the other end of the segment.
- ○ Adjusting the compass to a slightly shorter width, draw arcs from the other end of the segment.

4) The coordinate of point X on $\overline{PQ}$ such that *PX* to *XQ* is 5:1 is _____.

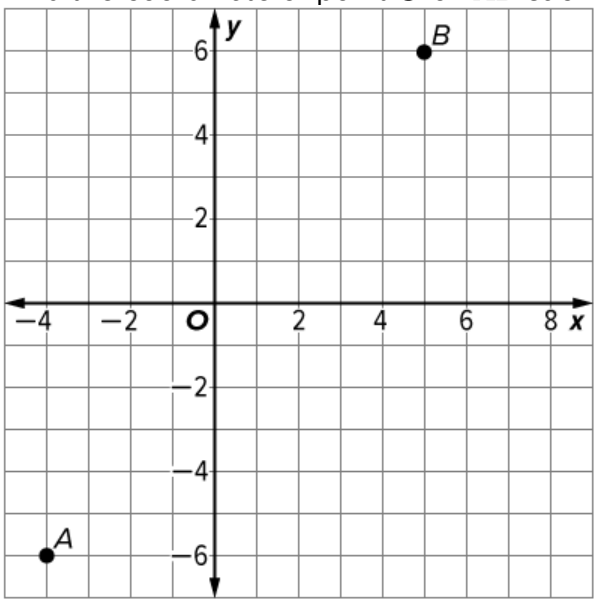


5) *B* is between *A* and *C*. If $AB = x + 2$, $BC = 2x - 3$, and $AC = 5x - 7$, what is *AB*?
$AB =$ _____

Student Name: _____ Date: _____

Module 1 TEST: Geometric Basics

6) Find the coordinate of point C on $\overline{AB}$ such that the ratio of *AC* to *CB* is 3:6.



Point C is located at ___.

- $\left(-3\frac{1}{3}, -6\right)$
- $(1, 1)$
- $(-1, -2)$
- $(6, 8)$

7) PARKS Nate wants to visit his friend Mac before going to the park. Nate's house is located at $(-2,\ 4)$, while the park is located at $(10,\ 2)$. Find the location of Mac's house if it is halfway between Nate's house and the park.
The location of Mac's house is (_____, _____).

8) Fill in the blanks using the available answer choices.

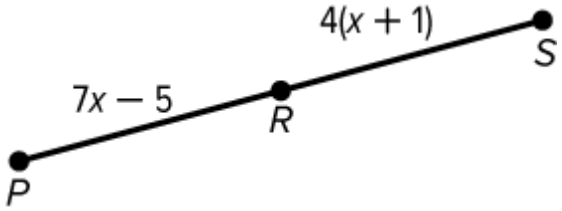
On a number line, M is located at -3 and N is located at 2. The midpoint of $\overline{MN}$ is located at _____.
(Blank 1)

Blank 1 options
- 2.5
- –1
- –0.5

Student Name: _____ Date: _____

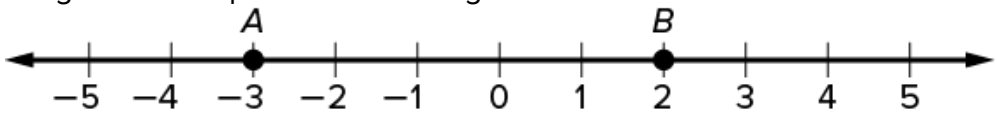
Module 1 TEST: Geometric Basics

9) What is the length of $\overline{PS}$, when R is the midpoint of $\overline{PS}$?



- 3
- 16
- 23
- 32

10) Find the coordinate of *P* that represents the weighted average of *A* and *B*, where point *A* has a weight of 2 and point *B* has a weight of 5.



- $-\frac{11}{7}$
- $-\frac{1}{2}$
- $-\frac{1}{5}$
- $\frac{4}{7}$

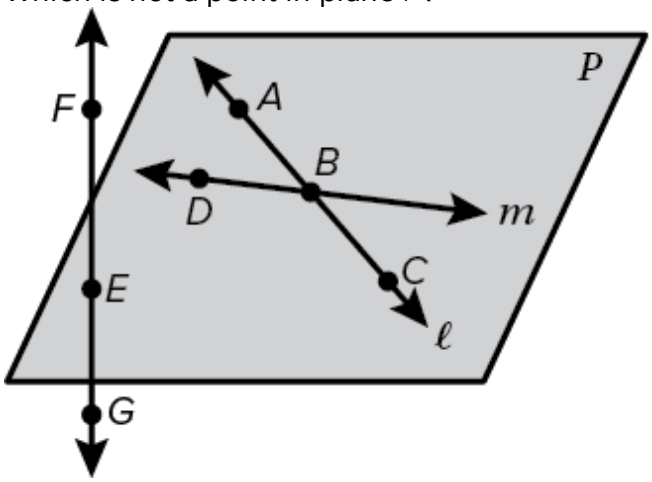
11) Points *A* and *B* have coordinates $A(-4, 2)$ and $B(3, -6)$. Find the coordinates of point *P*, the weighted average of points *A* and *B*, in which point *A* has a weight of 4 and point *B* has a weight of 3.

- $\left(-\frac{7}{2}, -5\right)$
- $\left(-1, -\frac{10}{7}\right)$
- $\left(-\frac{1}{2}, -2\right)$
- $\left(0, -\frac{20}{7}\right)$

Student Name: _____ Date: _____

Module 1 TEST: Geometric Basics

12) Which is not a point in plane *P*?



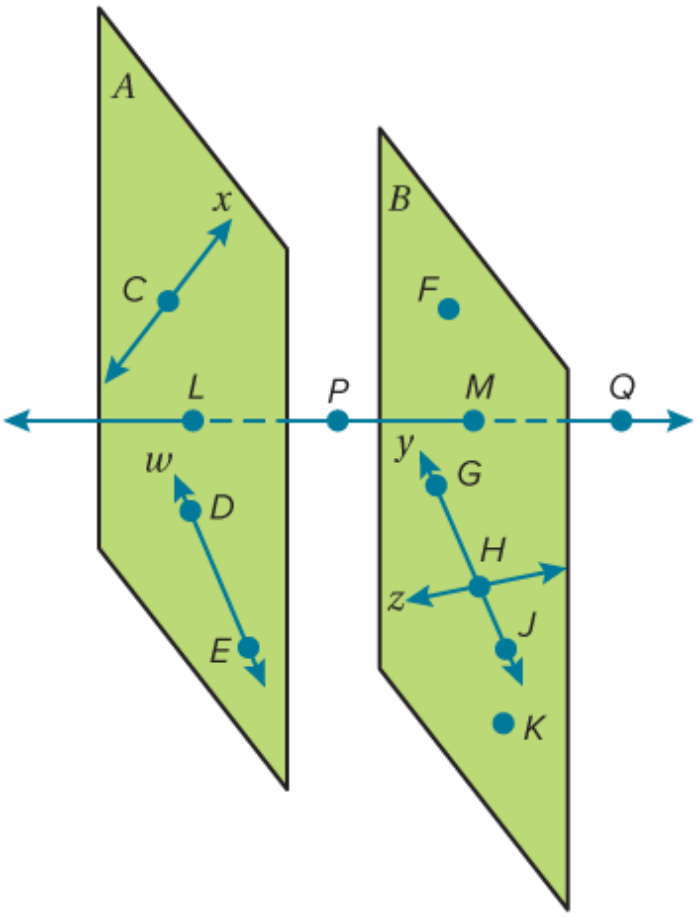
- *A*
- *B*
- *E*
- *G*

Student Name: _____ Date: _____

Module 1 TEST: Geometric Basics

13) Refer to the figure. Name the intersection of lines y and z.

Point _____

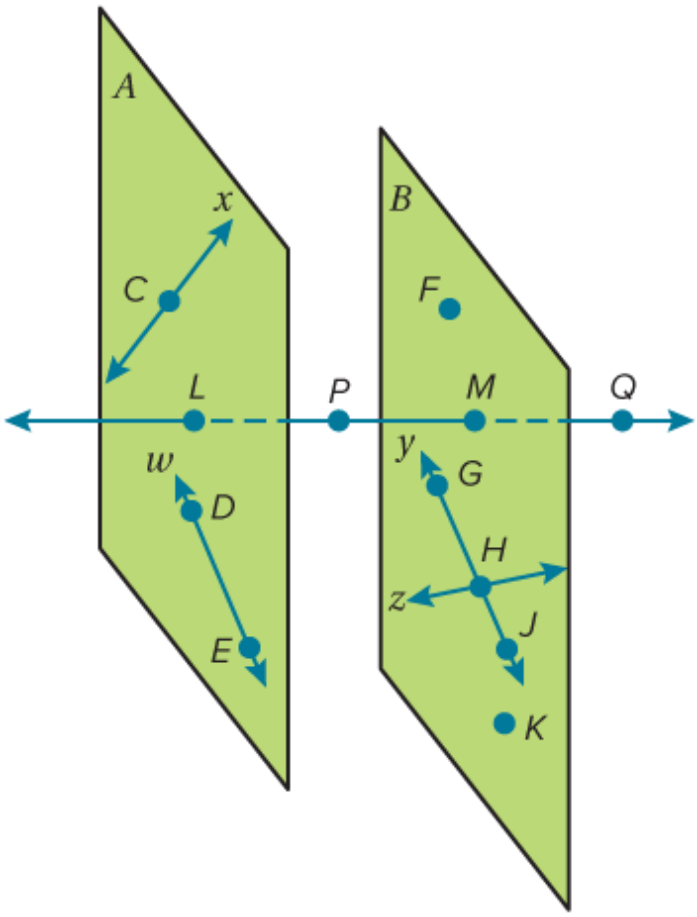


Student Name: _____ Date: _____

Module 1 TEST: Geometric Basics

14) Refer to the figure. Name the plane containing the lines *w* and *x*.

Plane _____

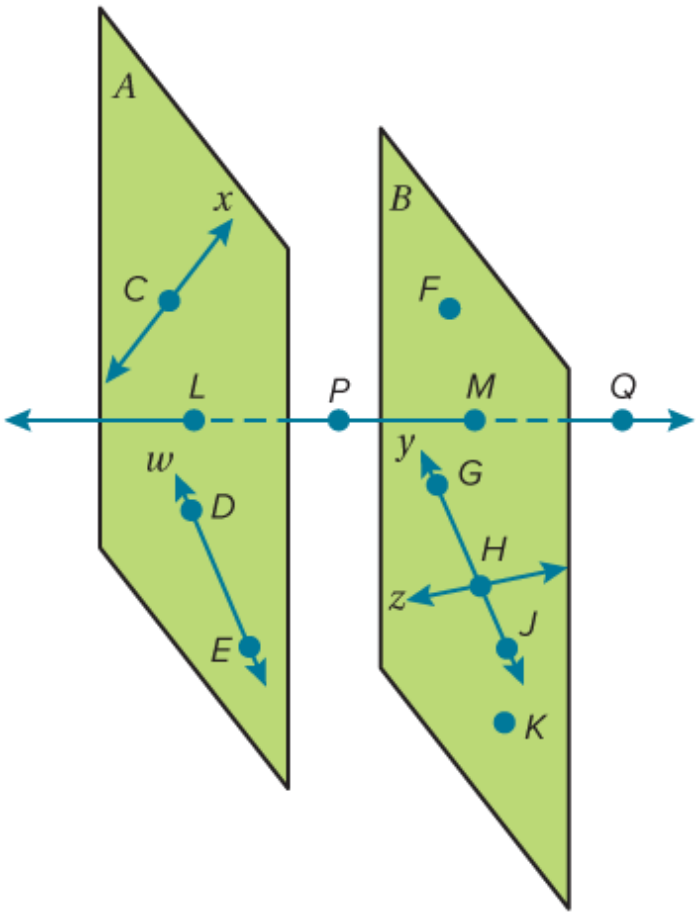


Student Name: _____ Date: _____

Module 1 TEST: Geometric Basics

15) Fill in the blanks using the available answer choices.

Refer to the figure. Are points *C*, *D*, *L*, and *P* coplanar? Explain.



_____; Points *C, D,* and *L* lie in plane _____, and point _____ lies between planes *A* and *B*.
(Blank 1) (Blank 2) (Blank 3)

Blank 1 options	Blank 2 options	Blank 3 options
• Yes	• A	• D
• No	• B	• P

Module 1 TEST: Geometric Basics

16) Fill in the blanks using the available answer choices.

Choose the correct geometric term modeled by the object.

mirror

_____
(Blank 1)

Blank 1 options
- line
- plane
- point