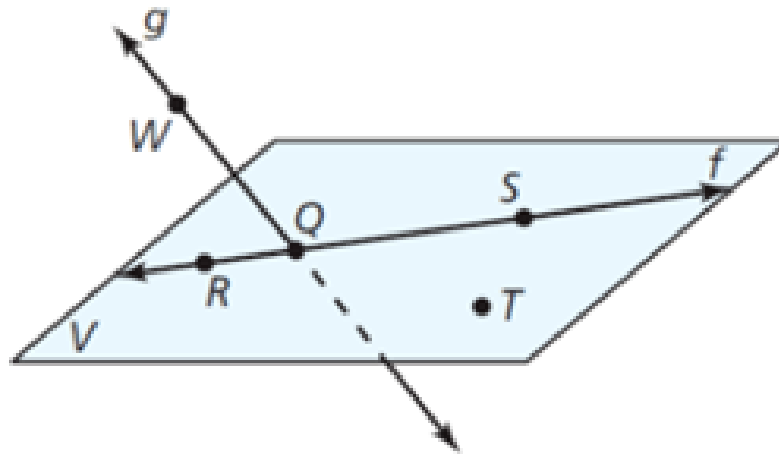


1. What is an incorrect name for the plane shown?



Plane V

Plane SQT

Plane RTS

Plane RQS

Can't be collinear

Q. What is the distance between the following points:

A(5, -3) & B(7, 4)

$$d = \sqrt{(5-7)^2 + (-3-4)^2}$$

$$= \sqrt{(-2)^2 + (-7)^2}$$

$$= \sqrt{4 + 49} = \sqrt{53}$$

Q. M is the midpoint of segment JL. J has coordinates (2, -1) and M has coordinates (-4, 3). What are the coordinates of L?

$$(-4, 3) = \left( \frac{2+x}{2}, \frac{-1+y}{2} \right)$$

$$-4 = \frac{2+x}{2}$$

$$\begin{array}{r} -8 = 2+x \\ -2 - 2 \end{array}$$

$$\hline -10 = x$$

$$3 = \frac{-1+y}{2}$$

$$\begin{array}{r} 6 = -1+y \\ +1 + 1 \end{array}$$

$$\hline 7 = y$$

$$\boxed{(-10, 7)}$$

Q. What are the coordinates of the midpoint of a line segment that connects the points (7, -3) and (-5, 6)?

$$\frac{7 + (-5)}{2}, \frac{-3 + 6}{2}$$
$$\frac{2}{2}, \frac{3}{2}$$
$$(1, \frac{3}{2})$$

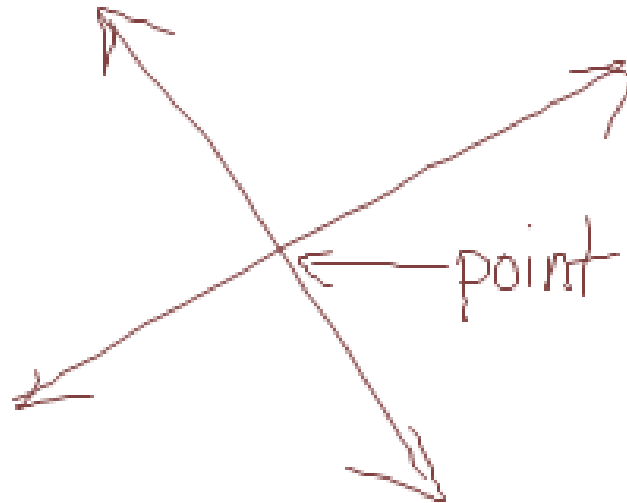
7. If two lines intersect, they intersect in a \_\_\_\_

line

plane

point

ray



Q. If two planes intersect, the intersection is a \_\_\_\_\_

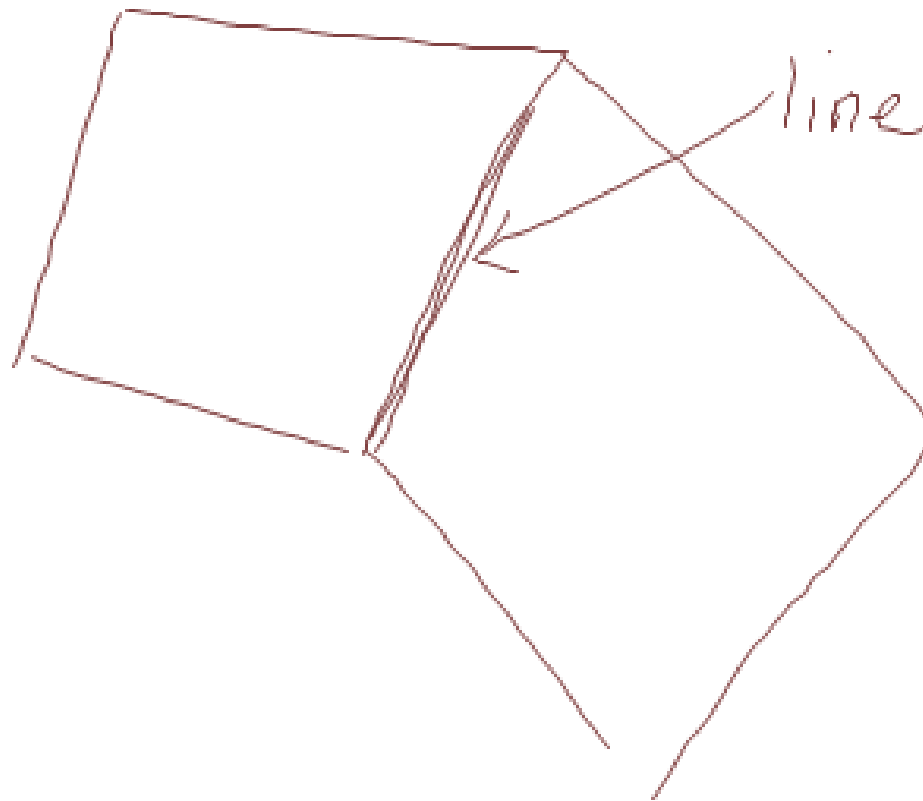
— answer choices —

point

plane

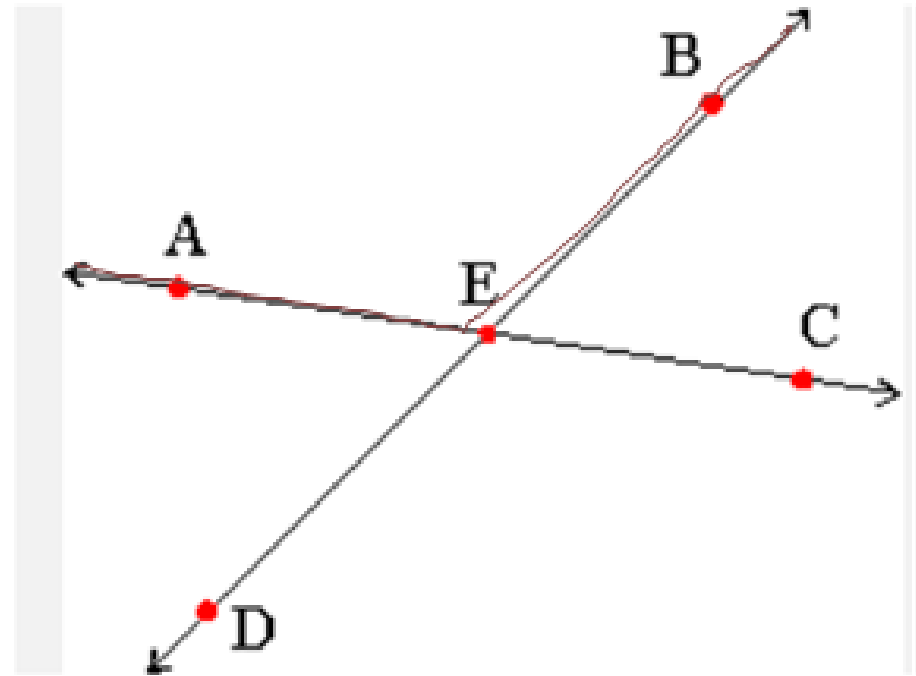
line

arc



10. Ray EA and Ray EB are opposite rays

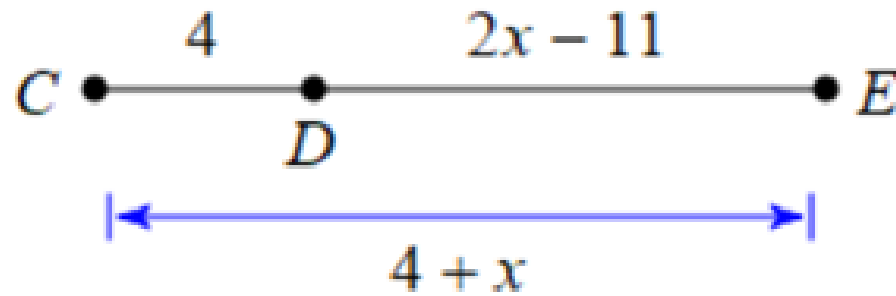
opposite rays  
 $\vec{EA}$  &  $\vec{EC}$   
 $\vec{EB}$  &  $\vec{ED}$



True

False

14. Find  $x$ .



$x = -3$

$x = 19$

$x = 15$

$x = 11$

$$4 + 2x - 11 = 4 + x$$

$$\begin{array}{r} -7 + 2x = 4 + x \\ -x \quad -x \\ \hline \end{array}$$

$$\begin{array}{r} -7 + x = 4 \\ +7 \quad +7 \\ \hline \end{array}$$

$$x = 11$$



17. A statement accepted as true without proof is a

\_\_\_\_\_

Theorem

Definition

Postulate

Hypothesis

18. Find the perimeter of  $\square ABC$ .

$$AB = \sqrt{(-4 - (-1))^2 + (3 - 5)^2}$$

$$= \sqrt{(-3)^2 + (-2)^2}$$

$$= \sqrt{9 + 4} = \sqrt{13} \\ = 3.6$$

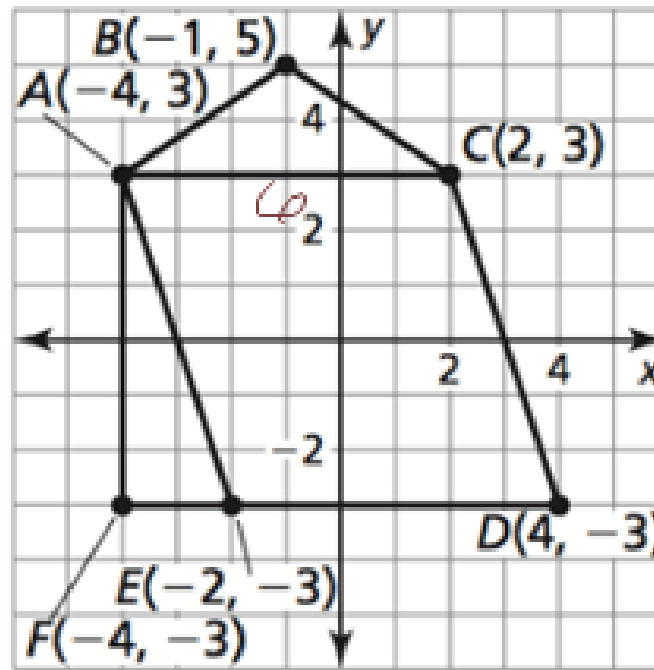
$$BC = \sqrt{(-1 - 2)^2 + (5 - 3)^2}$$

$$= \sqrt{(-3)^2 + (2)^2}$$

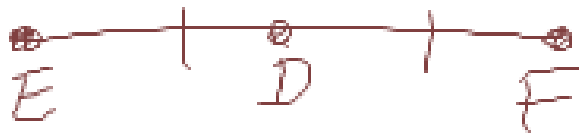
$$= \sqrt{9 + 4}$$

$$= \sqrt{13}$$

$$= 3.6$$



$$3.6 + 3.6 + 6 = 13.2$$



$$\begin{array}{r} 4x + 6 = 7x - 9 \\ -4x \quad -4x \\ \hline 6 = 3x - 9 \\ +9 \quad +9 \\ \hline 15 = 3x \\ 5 = x \end{array}$$

21. D is the midpoint of EF.

$$ED = 4x + 6$$

$$DF = 7x - 9$$

Find EF.

$$\begin{aligned} ED &= 4(5) + 6 \\ &= 26 \end{aligned}$$

$$\begin{aligned} DF &= 7(5) - 9 \\ &= 26 \end{aligned}$$

$$\begin{aligned} EF &= 26 + 26 \\ &= 52 \end{aligned}$$

22. Find the slope of the line that passes through the points (2, 4) and (6, 12)

$$\begin{aligned} m &= \frac{12 - 4}{6 - 2} \\ &= \frac{8}{4} \\ &= 2 \end{aligned}$$

$$m = -4$$
$$// m = -4$$

24. What is the equation of a line parallel to the following line that passes through the given point?

$y = -4x + 6$  (2, -1)

$y = 1/4x + 6$

$y = -4x + 7$

$y = -4x + 2$

$y = 1/4x - 1$

$$y - (-1) = -4(x - 2)$$

$$y + 1 = -4x + 8$$

$$y = -4x + 7$$

$$m = 3$$
$$\frac{1}{m} = -\frac{1}{3}$$

25. What is the equation of a line that is perpendicular to this line and goes through the given point?

$$y = 3x + 2 \quad (3, -4)$$

$y = 3x - 2$

$y = -1/3x - 5$

$y = 3x - 4$

$y = -1/3x - 3$

$$y - (-4) = -\frac{1}{3}(x - 3)$$

$$y + 4 = -\frac{1}{3}x + 1$$
$$-4 = -\frac{1}{3}x - 4$$

$$y = -\frac{1}{3}x - 3$$

26. Are these two lines parallel, perpendicular or neither?

$$y = -1/3x - 5$$

$$y = 1/3x + 2$$

$$m = -\frac{1}{3}$$

$$m = \frac{1}{3}$$

Parallel

Perpendicular

Neither

27. Use the equations given to determine if the following lines are parallel, perpendicular, neither or both.

$$y=4x-2$$

$$y-3=-1/4(x-8)$$

$$m=4$$

$$y-3 = \left(-\frac{1}{4}\right)x + 2 \quad m = -\frac{1}{4}$$

parallel

perpendicular

neither parallel nor perpendicular

both parallel and perpendicular



31. When copying line segment AB using a straight edge and a compass, the compass should be used to:



- Draw an arc above point A
- Measure the length of segment AB
- Draw an arc between point A and point B
- Measure half the length of line segment AB

32. What is being constructed in the figure?



the perpendicular bisector of line  $m$

the line perpendicular to line  $m$  through a point on the line

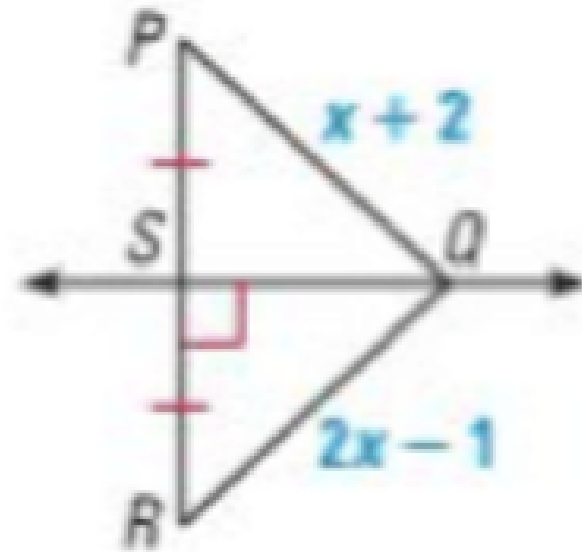
the line parallel to line  $m$  through a point NOT on the line

an angle that has line  $m$  as its bisector

36. Find PQ

$$\begin{array}{r} x + 2 = 2x - 1 \\ -x \quad -x \\ \hline 2 = x - 1 \\ +1 \quad +1 \\ \hline 3 = x \end{array}$$

. Find PQ.



$$\begin{aligned} PQ &= 3 + 2 \\ &= 5 \end{aligned}$$