

Good Morning!!

Have a seat...



Did you remember to get your textbooks covered?



BINS IN THE BACK...

Skills Check Answers

1. The distance around a rectangle is called its PERIMETER, and the distance around a circle is called its CIRCUMFERENCE.

2. The number of square units covered by a figure is called its AREA

Evaluate each expression

3. $|4-6|$

2

4. $|-4+5|$

1

5. $|-8-10|$

18

Evaluate the expression when $x = 2$.

6. $5x$

10

7. $20-8x$

4

8. $-5x - 4 + 2x$

-10

Solve the equation.

9. $274 = -2x$

-137

10. $8x + 12 = 60$

6

11. $8m - 5 = 25 - 2m$

3

$$12. 4(x - 7) = -12$$

4

$$13. 5(x + 8) = 4x$$

-40

Simplify each expression. All variables are positive.

$$14. \sqrt{(0-h)^2}$$

h

$$15. \frac{2m+2n}{2}$$

$m+n$

$$16. \sqrt{r^2 \cdot r^2}$$

r^2

$$17. x^2 + 12^2 = 13^2$$

± 5

$$18. 48 + x^2 = 84$$

± 6

$$19. 43 > x + 35$$

$8 > x$ or $x < 8$

Simplify each expression.

20. $\frac{9 \cdot 20}{15}$

12

21. $\frac{15}{25}$

$\frac{3}{5}$

22. $\frac{3+4+5}{6+8+10}$

$\frac{1}{2}$

Solve the proportion.

23. $\frac{3}{x} = \frac{12}{16}$

4

24. $\frac{2}{3} = \frac{x}{15}$

10

25. $\frac{x+4}{x-4} = \frac{6}{5}$

$5x+20 = 6x-24$

$44 = x$

44

Sections 1.1

Identifying Points, Lines, Planes, and Segments.

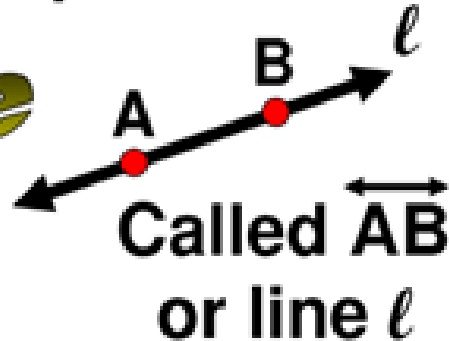
1.1 Points, Lines, and Planes

Point

●
Called
point A

A point has no dimension.
It is represented by a dot.

Line

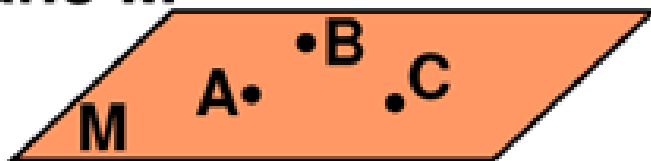


A Line has 1 dimension. It is represented by a line with 2 arrowheads, but it extends without end.

Through any 2 points, there is exactly 1 line. You can use any 2 points on a line to name it.

Called
plane ABC
or plane M

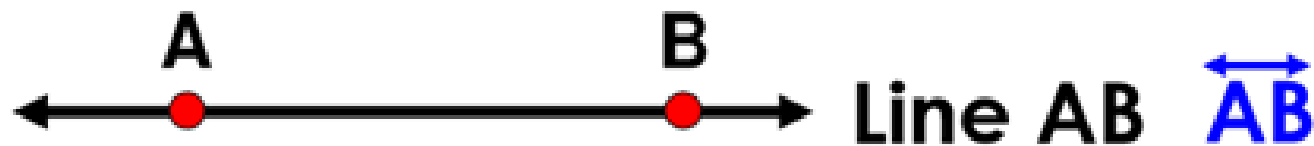
Plane



A Plane has 2 dimensions. it is represented by a shape that looks like the floor or wall. But it extends without end.

Through any 3 points not on the same line, there is exactly 1 plane. You can use 3 points that are not all on the same line to name a plane.

1.1 Line Segments and Rays



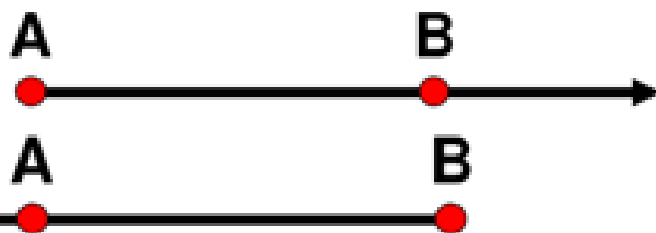
Line Segment



The line segment AB, or segment AB (written as \overline{AB}) consists of the endpoints A and B and all points on \overleftrightarrow{AB} that are between A and B.

Note that \overline{AB} can also be named \overline{BA}

Ray



The ray AB (written as \overrightarrow{AB}) consists of the endpoint A and all points on \overleftrightarrow{AB} that lie on the same side of A as B.

Note that \overrightarrow{AB} and \overrightarrow{BA} are different rays.

Practice

Write if each is a point, line segment, line, or ray and its name.

Example:



Line TS or ST \overleftrightarrow{TS} or \overleftrightarrow{ST}

1.



line segment \overline{CD}

2.



Ray \overrightarrow{XY}

3.



Ray \overrightarrow{QR}

4.



5.



6.



7.



8.



ANSWERS

Write if each is a point, line segment, line, or ray and its name.

Example:



Line TS or ST \overleftrightarrow{TS} or \overleftrightarrow{ST}

1.



Line Segment CD or DC
 \overline{CD} or \overline{DC}

2.



Ray XY \overrightarrow{XY}

3.



Ray QR \overrightarrow{QR}

4.



Point L

5.



Line Segment NO or ON
 \overline{NO} or \overline{ON}

6.



Line UV or VU \overleftrightarrow{UV} or \overleftrightarrow{VU}

7.



Line HI or IH \overleftrightarrow{HI} or \overleftrightarrow{IH}

8.



Ray KJ \overrightarrow{KJ}

1B. Collinear and Coplanar

Collinear

Points on the same line

Points

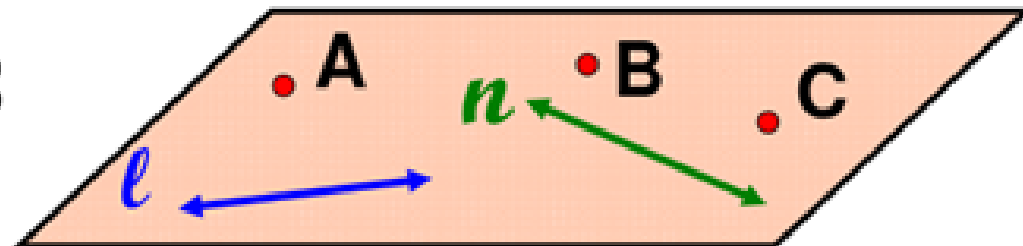


D, E, F, and G are **collinear**

Coplanar

Points on the same plane

Points or Lines



A, B, and C are **coplanar points**

Lines l and n are **coplanar lines**

"Co" means "together"

Example 1: Naming Points

- Three points that are **collinear**:

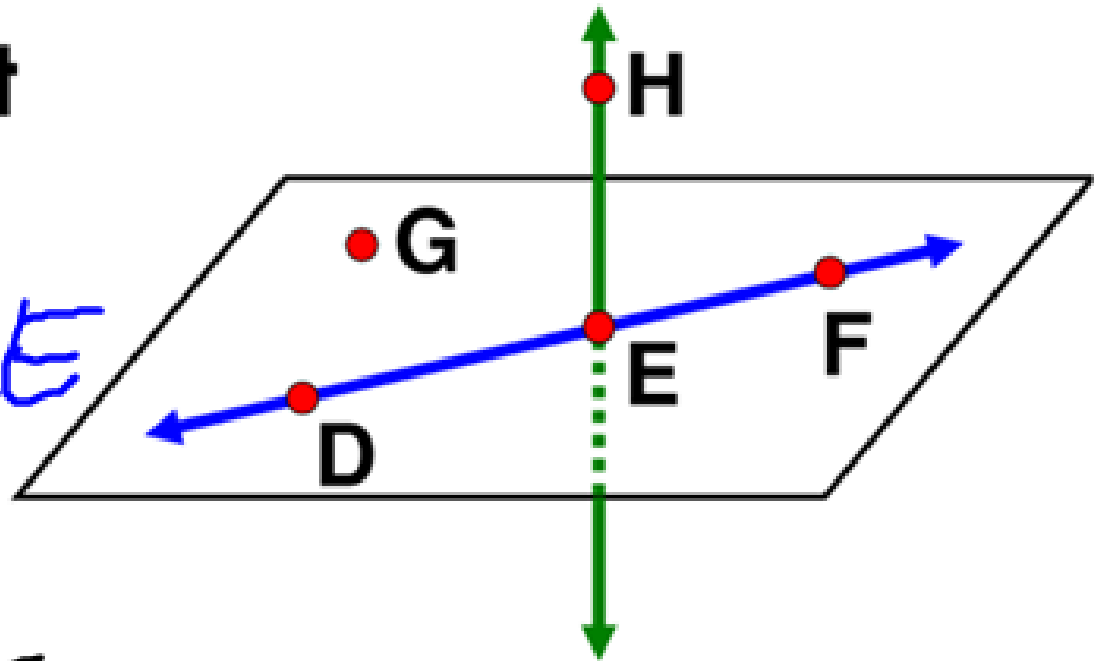
D, E, F H E

- Four points that are **coplanar**:

G, D, E, F

- Three points that are **not collinear**:

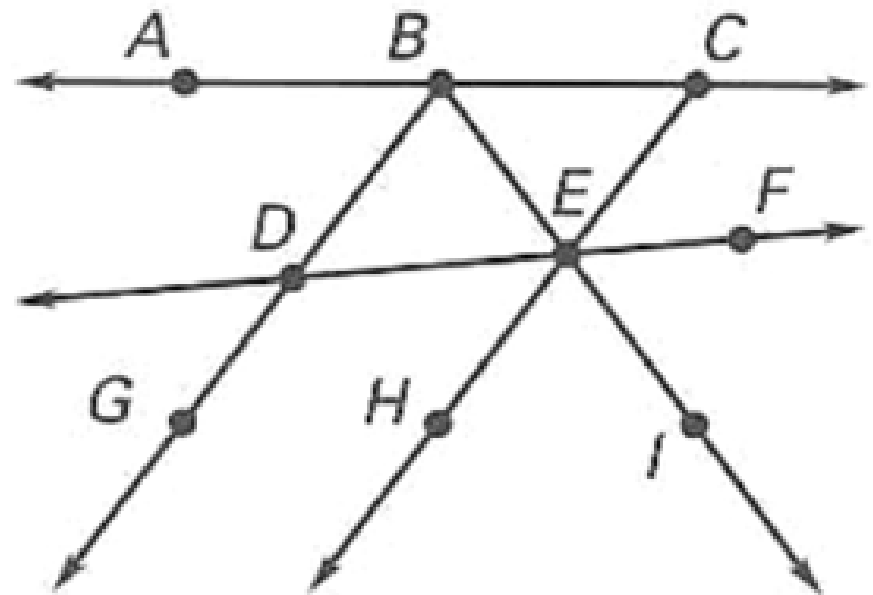
G, H, F



Practice 1A: Naming Points

- Name a point that is collinear with the given points

- B and E: I
- C and H: E
- D and G: B
- A and C: B
- H and E: C
- G and B: D



Practice 1B: Naming Points

- Name a point that is coplanar with the given points

• M, N, R: T

• M, N, O: P

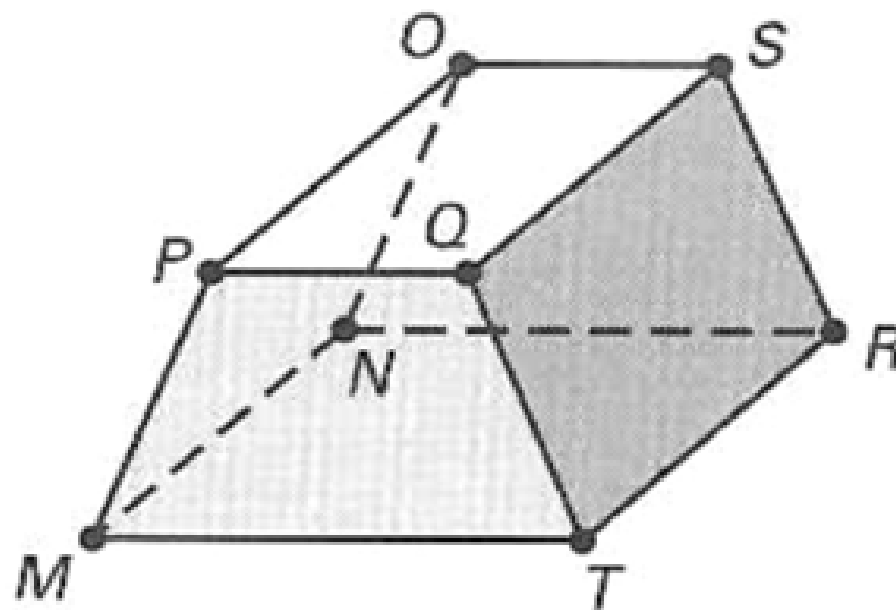
• M, T, Q: P

• Q, T, R: S

• T, R, S: Q

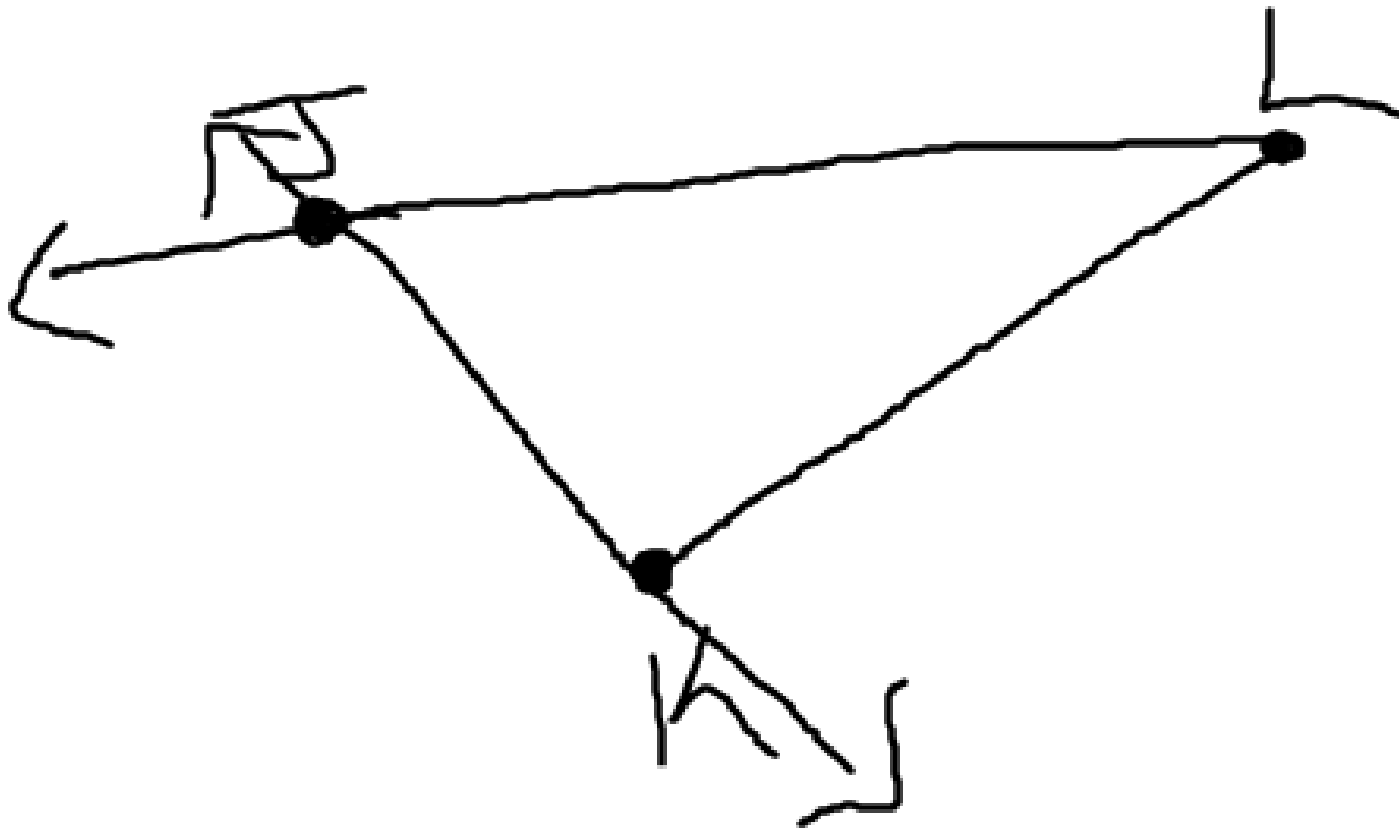
• Q, S, O: ~~M~~

P
N



Example 2: Drawing Lines & Rays

- Draw points J, K, and L (non-collinear)
- Then, draw \overleftrightarrow{JK} , \overline{KL} , and \overrightarrow{LJ}



Determine whether each statement is true or false.

- 1) A point has no length, width, or thickness.**
- 2) A line is limited in length.**
- 3) A plane has boundaries that are lines.**
- 4) \overleftrightarrow{AB} and \overleftrightarrow{BA} name the same line.**

Define Collinear and Coplanar.

Name each point, line, line segment, or ray.

1.



2.



3.



4.



5.



6.