Questions on pages 5-7?

We will be taking our second content mastery quiz shortly. Look over pages 5-7, also page 8.

Aug 28-8:22 AM

11. Sketch and describe all possible ways that a line and a plane can intersect.

line

represents
line of
intersection

this is the
point of
intersection

point

Aug 28-9:36 AM

PAGE 8 OF STUDENT TEXT

You can use many tools to create geometric figures. Some tools, such as a ruler or a protractor, are classified as measuring tools. A **compass** is a tool used to create arcs and circles. A straightedge is a ruler with no numbers. It is important to know when to use each tool.

Protractor   Compass   Straightedge
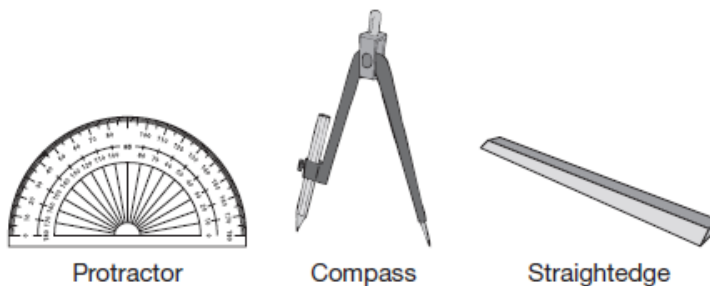
- When you **sketch** a geometric figure, the figure is created without the use of tools. *[not very accurate]*

- When you **draw** a geometric figure, the figure is created with the use of tools such as a ruler, straightedge, compass, or protractor. A drawing is more accurate than a sketch. *[kind of accurate]*

- When you **construct** a geometric figure, the figure is created using only a compass and a straightedge. *[very accurate]*

4. Explain the differences among sketching a geometric figure, drawing a geometric figure, and constructing a geometric figure.

Content Mastery Quiz #2

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Coplanar lines are two or more lines that are located in the same plane. Skew lines are two or more lines that do not intersect and are not parallel. Skew lines do not lie in the same plane.

Intersecting lines

pt. of Intersection

parallel lines
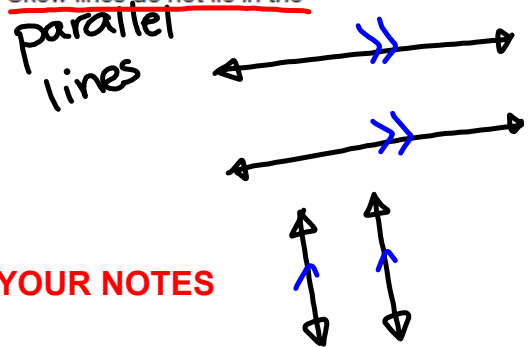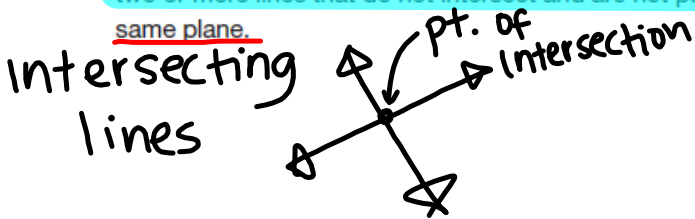
NOT IN YOUR BOOK, COPY INTO YOUR NOTES

2. Identify each of the following in the figure shown.

   a. Name all collinear points.

   B & D; D & F; C, H, G

   b. Name all coplanar lines.

   BD & DF

   c. Name all skew lines.

   BD & CG & DF

   OR

   BD & CG

   DF & CG
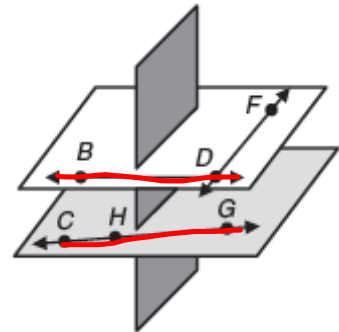
PAGE 10 OF STUDENT TEXT

A **ray** is a part of a line that begins with a single point and extends infinitely in one direction. The **endpoint of a ray** is the single point where the ray begins.

A ray is named using two capital letters, the first representing the endpoint and the second representing any other point on the ray. Ray AB can be written using symbols as $\vec{AB}$, which is read as "ray AB."

ray BA
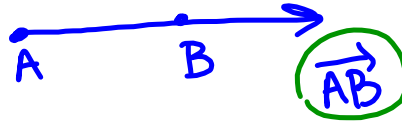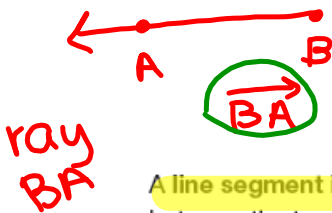
ray AB

Key
is
"using" symbols

PAGE 11 OF STUDENT TEXT

A **line segment** is a part of a line that includes two points and all of the collinear points between the two points. The **endpoints of a line segment** are the points where the line segment begins and ends.

A line segment is named using two capital letters representing the two endpoints of the line segment. Line segment AB can be written using symbols as $\overline{AB}$, which is read as "line segment AB."

line segment AB or BA

using symbols

$(\overline{AB}$ or $\overline{BA})$

The endpoint is where the ray *begins*? Shouldn't it be called the "begin-point" instead?

NOT IN YOUR BOOK, COPY PROBLEM INTO NOTES

3. Identify each of the following in the figure shown.

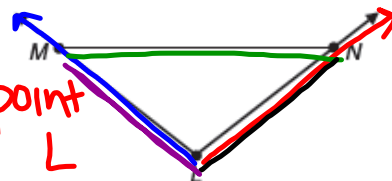   a. Name all rays and identify each endpoint.

   $\vec{LM}$, endpoint L; $\vec{LN}$, endpoint L

   b. Name all line segments and identify the endpoints.

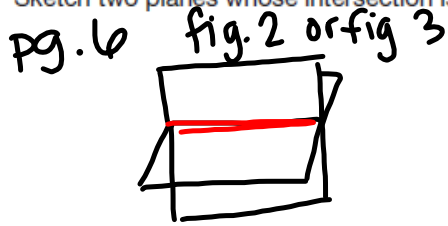 $\overline{MN}$, endpt. M & N;

   $\overline{NL}$, endpt. N & L;
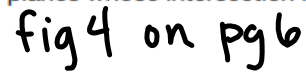
   $\overline{ML}$, endpt. M & L
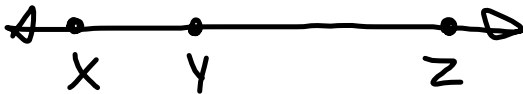
NOT IN YOUR BOOK, COPY PROBLEM INTO NOTES

5. Sketch two planes whose intersection is a line.

pg.6   fig. 2 or fig 3

6. Sketch three planes whose intersection is a point.

fig 4 on pg 6

7. Draw and label three collinear points X, Y, and Z such that point Y is between points X and Z and the distance between points X and Y is one half the distance between points Y and Z.

X   Y   Z

8. Use a symbol to represent the name of each geometric figure.

a.

$\overrightarrow{CD}$

b.

$\overline{PQ}$ or $\overline{QP}$

c.

$\overleftrightarrow{GH}$ or $\overleftrightarrow{HG}$

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If two line segments have equal measure, then the line segments have the same length. ==Congruent line segments are two or more line segments of equal measure.==

If ==$m\overline{AB} = m\overline{CD}$,== then line segment AB is congruent to line segment CD by the definition of congruent line segments. This statement can be written using symbols as ==$\overline{AB} \cong \overline{CD}$== and is read as "line segment AB is congruent to line segment CD."

m means measure

Use the congruence symbol, $\cong$, between references to congruent geometric figures; and the equal symbol, $=$, between references to equal lengths or distances.

$\cong$

congruent

Markers are used to indicate congruent segments in geometric figures. If a diagram has more than one set of congruent segments then sets of markers can be used.

The figure shows $\overline{AB} \cong \overline{CD}$ and $\overline{AD} \cong \overline{BC}$.

A •———||———• B
| |
D •———||———• C
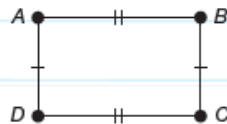
11. Draw and label two congruent line segments. Then, use symbols to write a statement that describes their relationship.

Individual Reflection #1 - in class

Homework

Finish pages 8-16 in student text