2.4 Making Assumptions and Basic Vocab Notes Name: Key

Key terms:

- Straight line/Straight angle- has a measure of 180°.
- Collinearity- on the same line (A B C D)
- Right angle- measure of 90° (⊾)
- Congruent segments- have the same length/measure A—B ≅ C—D
- Congruent angles- have the same measure ∠A ≅ ∠B
- Bisect- to cut a segment or angle into 2 ≅ parts or angles.
- Midpoint- ↳ a point that divides a segment into 2 ≅ parts.

When interpreting diagrams... Q—P—S

You Should Assume:

- Straight lines/angles
- Collinearity of points (are they on the same line?)
- betweenness of points
- relative position of points.

You Should NOT assume:

- right angles
- ≅ segments
- ≅ angles (Except for vertical angles, you can assume those)
- relative sizes of segments & angles.
- Parallel lines

Use the diagram below, and determine whether you can make the given assumption.

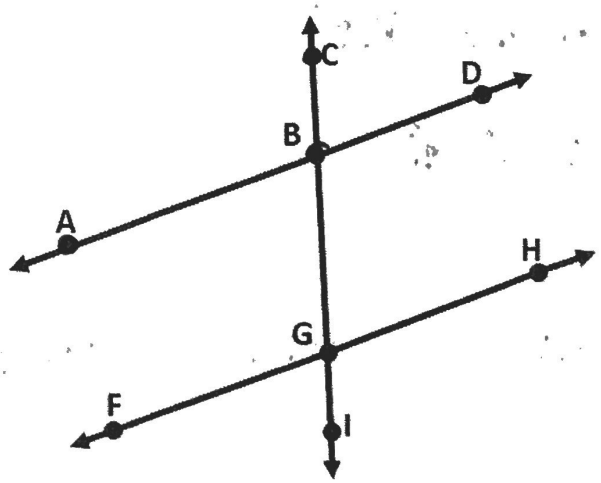
1) $\overline{AD} \parallel \overline{FH}$ NO

2) $\angle ABD$ is a straight $\angle$

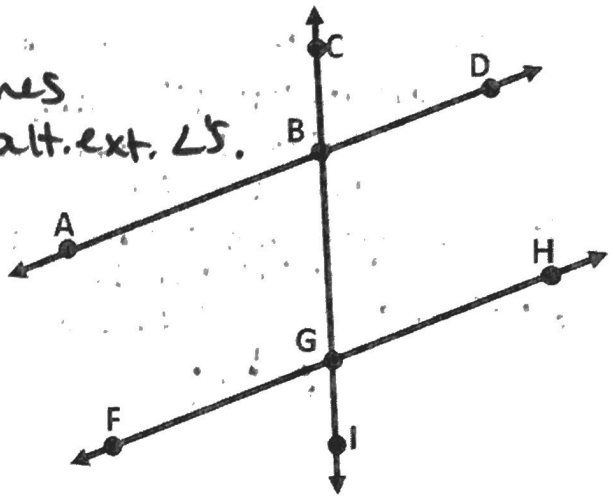
Yes

3) C, B, & A are non-collinear

Yes



Use the diagram below, and determine whether you can make the given assumption.



4) $\angle ABC \cong \angle IGH$

NO, we don't know if lines are $\parallel$. So can't assume alt. ext. $\angle$'s.

5) $\overline{CB}$ bisects $\overline{FH}$

NO

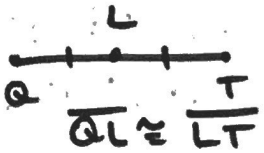
6) $\angle ABC \cong \angle DBG$

Yes, can assume vertical angles.

Describe the meaning of each symbol or phrase:

1) L is the midpoint of $\overline{QT}$

L is cutting $\overline{QT}$ into two $\cong$ parts.



$\overline{QL} \cong \overline{LT}$

2) $m\angle R = 28°$

measure of $\angle R$ is equal to 28°.

3) $\overline{HG} \cong \overline{PJ}$

Segment $\overline{HG}$ is congruent to segment $\overline{PJ}$.

4) $\overline{AB}$ Segment $\overline{AB}$

5) $\overleftrightarrow{AB}$ Line $\overleftrightarrow{AB}$

6) $m\angle JAB + m\angle HIT = 90°$

$\angle JAB$ and $\angle HIT$ are complementary