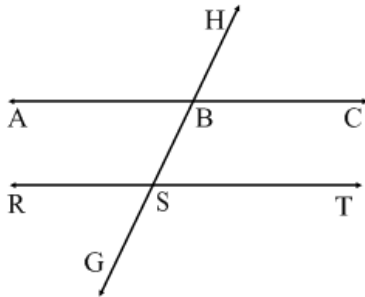


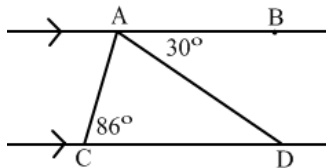
Quiz 1.3 Study Guide

1. In the diagram below,  $\overline{AC} \parallel \overline{RT}$  and both lines are intersected by transversal  $\overline{GH}$  at  $B$  and  $S$ .



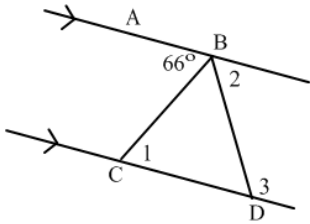
- If  $m\angle HBC = 67^\circ$ , explain why the measure of angle  $RSB$  is  $67^\circ$ .
- If  $m\angle ABS = 62^\circ$ , find  $m\angle RSB$ .
- If  $m\angle CBS = 115^\circ$ , find  $m\angle TSG$ .
- If  $m\angle HBA = 120^\circ$ , explain why the measure of angle  $RSB$  is  $60^\circ$ .
- If  $m\angle TSG = (3x + 17)^\circ$  and  $m\angle CBS = (4x - 13)^\circ$ , find  $x$ .

2. In the accompanying diagram,  $\overline{AB} \parallel \overline{CD}$ ,  $m\angle DAB = 30^\circ$  and  $m\angle ACD = 86^\circ$ . Find  $m\angle CAD$ .



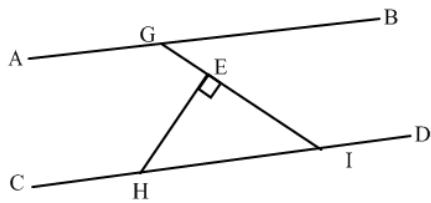
1. \_\_\_\_\_

3. Using the diagram below,  $\overline{AB} \parallel \overline{CD}$ ,  $\overline{BD} \cong \overline{CD}$ , and  $m\angle ABC = 66^\circ$ . Find the measures of angles 1, 2 and 3.



2.  $m\angle 1 = \underline{\hspace{2cm}}$      $m\angle 2 = \underline{\hspace{2cm}}$      $m\angle 3 = \underline{\hspace{2cm}}$

4. In the diagram below,  $\overline{AB} \parallel \overline{CD}$ ,  $\overline{GI} \perp \overline{EH}$  at  $E$ , and  $m\angle BGI = 39^\circ$ . Find  $m\angle EHI$ .



3.  $\underline{\hspace{2cm}}$

5. Given:  $\overline{AB} \parallel \overline{CD}$ ,  $\overline{AC} \cong \overline{BC}$   
 a. Explain why  $m\angle 1 = m\angle 3 + m\angle 4$ .

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- b. If  $m\angle 2 = 80^\circ$ , explain why  $m\angle 6 = 80^\circ$ .

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- c. Explain why  $\angle 2 \cong \angle 3$

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