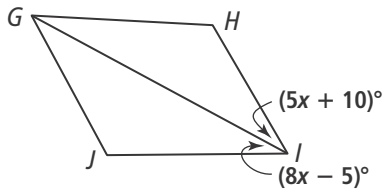
Name _____

6-6 Mathematical Literacy and Vocabulary

Conditions of Special Parallelograms

A student wants to find the value for *x*, where ▱*GHIJ* is a rhombus. She wrote the steps to solve the problem on note cards, but they got mixed up.



Think: If ▱*GHIJ* is a rhombus, the diagonal bisects ∠*JIH*.

Subtract 5*x* from each side:
$15 = 3x$

Add 5 to each side:
$5x + 15 = 8x$

Divide each side by 3:
$5 = x$

Substitute for $m\angle GIH$ and $m\angle JIG$:
$5x + 10 = 8x - 5$

Check:
$5(5) + 10 = 8(5) - 5$
$25 + 10 = 40 - 5$
$35 = 35$

Note that $m\angle GIH = m\angle JIG$.

Use the note cards to write the steps in order.

1. First, _____

2. Second, _____

3. Third, _____

4. Fourth, _____

5. Next, _____

6. Then, _____

7. Finally, _____