Vocabulary and Core Concept Check

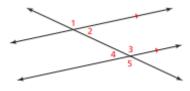
- WRITING How are the Alternate Interior Angles Theorem and the Alternate Exterior Angles Theorem alike? How are they different?
- WHICH ONE DOESN'T BELONG? Which pair of angle measures does not belong with the other three? Explain.

 $m \angle 1$ and $m \angle 3$

 $m\angle 2$ and $m\angle 4$

 $m\angle 2$ and $m\angle 3$

 $m \angle 1$ and $m \angle 5$



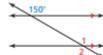
Monitoring Progress and Modeling with Mathematics

In Exercises 3–6, find $m \angle 1$ and $m \angle 2$. Tell which theorem you use in each case. (See Example 1.)

3



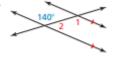
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5



6.



In Exercises 7–10, find the value of x. Show your steps. (See Examples 2 and 3.)

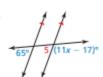
7.



8



9



10.



In Exercises 11 and 12, find $m \angle 1$, $m \angle 2$, and $m \angle 3$. Explain your reasoning.

11.



12.



 ERROR ANALYSIS Describe and correct the error in the student's reasoning.

