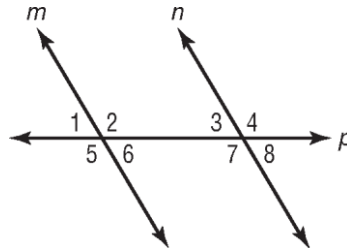


Lesson 1 Skills Practice

Lines

For Exercises 1-12, use the figure at the right.
 In the figure, line m is parallel to line n .



Classify each pair of angles as *alternate interior*, *alternate exterior*, or *corresponding*.

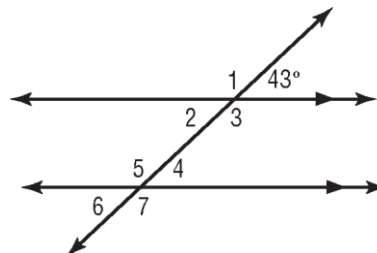
1. $\angle 1$ and $\angle 8$
2. $\angle 5$ and $\angle 7$
3. $\angle 3$ and $\angle 6$
4. $\angle 2$ and $\angle 4$
5. $\angle 2$ and $\angle 7$
6. $\angle 4$ and $\angle 5$

If $m\angle 4 = 122^\circ$, find each given angle measure. Justify your answer.

7. $m\angle 8$
8. $m\angle 5$
9. $m\angle 2$
10. $m\angle 1$
11. $m\angle 6$
12. $m\angle 7$

For Exercises 13 and 14, use the figure at the right.

13. List all the angles congruent to the given angle.
 Explain your reasoning.

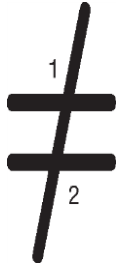


14. List all the angles congruent to $\angle 5$. Explain your reasoning.

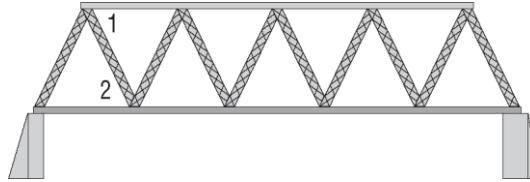
Lesson 1 Problem-Solving Practice

Lines

- 1. SYMBOLS** The symbol below is an equal sign with a slash through it. It is used to represent *not equal to* in math, as in $1 \neq 2$. If $m\angle 1 = 108^\circ$, classify the relationship between $\angle 1$ and $\angle 2$. Then find $m\angle 2$. Assume the equal sign consists of parallel lines.

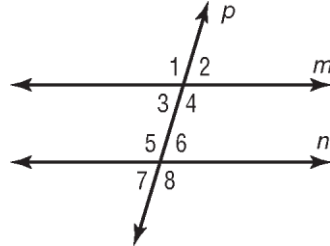


- 2. BRIDGE** Arturo is designing a bridge for science class using parallel supports for the top and bottom beam. Find $m\angle 2$ if $m\angle 1 = 60^\circ$.



- 3. LEG LIFTS** For cheerleading practice, Kiara must be able to lift her legs so that they are parallel to her outstretched arms. For each side of her body, what is the relationship between the angle formed by her arms and the floor and the angle formed by her legs and the floor?

- 4. ALGEBRA** In the figure, line m is parallel to line n . If $m\angle 3 = 7x - 10$ and $m\angle 6 = 5x + 10$, What is the measure of $\angle 3$ and $\angle 6$?



- 5. ALGEBRA** Refer to the figure in Exercise 4. If $m\angle 1 = 4x + 40$, and $m\angle 5 = 120^\circ$, what is the value of x ?

- 6. ART** The drawing below shows the side view of a drawing easel. The brace is parallel to the ground. If $m\angle A$ is 82° , what is the measure of $\angle B$?

