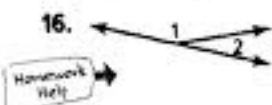


## Extra Practice

Identify each pair of angles as *complementary*, *supplementary*, or *neither*.

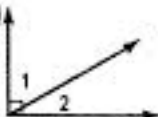
16.



Homework Help

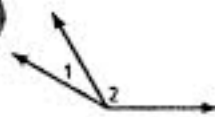
$\angle 1$  and  $\angle 2$  form a straight angle. So, the angles are supplementary.

17.



complementary

18.



neither

19.

$\angle J$  and  $\angle K$  are supplementary. The measure of  $\angle J$  is  $(9x)^\circ$  and the measure of  $\angle K$  is  $45^\circ$ . What is the value of  $x$ ?

15

$$\begin{array}{r} 9x + 45 = 180 \\ -45 \quad -45 \\ \hline 9x = 135 \end{array}$$

20.

$\angle C$  and  $\angle D$  are complementary. The measure of  $\angle C$  is  $(4x)^\circ$  and the measure of  $\angle D$  is  $26^\circ$ . What is the value of  $x$ ?

16

$$4x + 26 = 90$$

**MP Identify Structure** Determine whether each statement is *always*, *sometimes*, or *never* true. Explain your reasoning.

21. Two obtuse angles are supplementary.

never; Sample answer: Since an obtuse angle is greater than  $90^\circ$ , the sum of two obtuse angles must be greater than, not equal to,  $180^\circ$ .

22. Two vertical angles are complementary.

sometimes; Sample answer: If the measure of each angle is  $45^\circ$ , then the two angles are complementary.

23.

**MP Multiple Representations** Line  $a$  passes through  $(1, 4)$  and  $(-4, -1)$ . Line  $b$  passes through  $(-3, 4)$  and  $(2, -1)$ .

a. **Graphs** Graph each line on the same coordinate plane.

b. **Words** Describe the lines.

The lines appear to be perpendicular.

c. **Numbers** What is the slope of each line?

line  $a$ : 1; line  $b$ :  $-1$

