Name _____ Date _____ Class _____

SECTION 9A

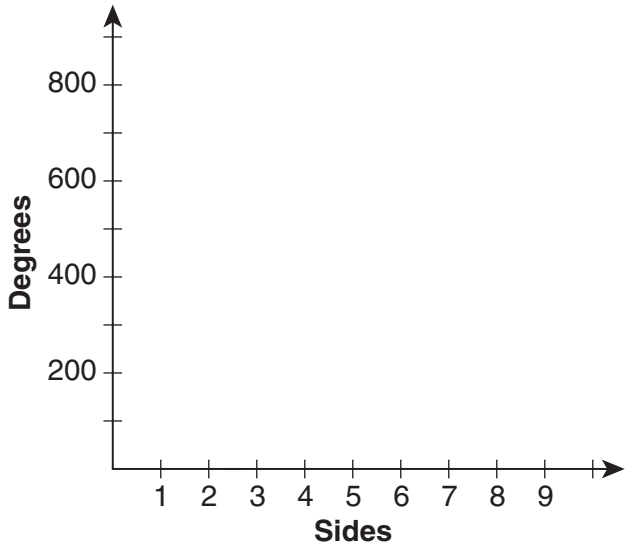
Ready To Go On? Skills Intervention

9-1 Multiple Representations of Functions

Using Multiple Representations to Solve Problems

The table shows the sum of the interior angles of polygons and the number of sides of the polygons. Use a graph and an equation to find the sum of the interior angles of a 24-gon.

Step 1 Graph the data.



Number of sides	Sum of the angles (degrees)
3	180
4	360
5	540
6	720
7	900

The data appears to be _____.

Step 2 Write an equation to represent the data. Let y = the sum of the interior angles and x = the number of sides of the polygon.

$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{360 - \square}{\square - 3} =$ _____ Find the slope using any two points.

$y - y_1 = m(x - x_1)$ Write point-slope form.

$y -$ _____ $=$ _____ $(x -$ _____$)$ Substitute values into point-slope form.

$y =$ _____$x -$ _____ Simplify.

Step 3 Evaluate the function for a polygon with 24 sides.

$y = 180($_____$) - 360$ Substitute $x = 24$.

$y =$ _____ Simplify.

The sum of the interior angles of a polygon with 24 sides is _____°.