

# Assignment

## Write

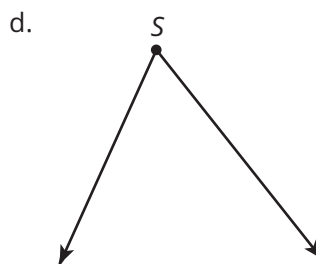
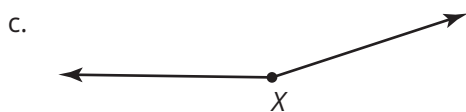
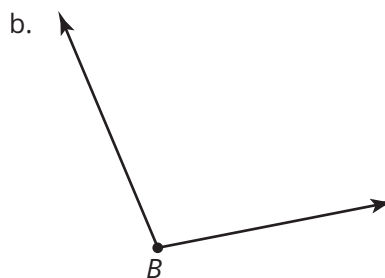
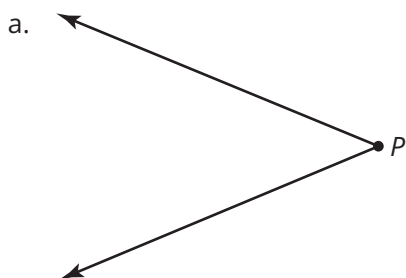
Explain how to bisect an angle using patty paper and using a compass and straightedge.

## Remember

- An angle bisector is a line, line segment, or ray that is drawn through the vertex of an angle and divides the angle into two congruent angles.
- All regular polygons can be inscribed in a circle. Some regular polygons, such as an equilateral triangle, square, hexagon and octagon, can be inscribed in a circle using a compass and straightedge.

## Practice

1. Construct the angle bisector of each given angle.



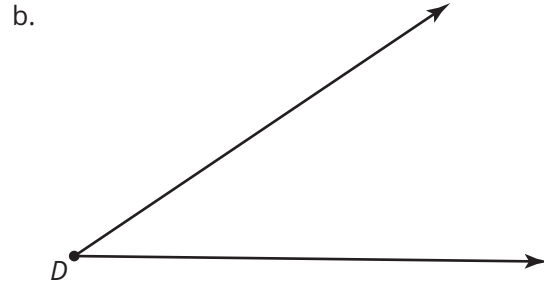
2. Construct a  $15^\circ$  angle using only a compass and straightedge. Summarize your steps.

## Stretch

Determine two different constructions you could use to construct an angle with a measure of  $45^\circ$  using only a compass and straightedge. Summarize the processes and show both constructions.

## Review

1. Duplicate each figure.



2. An advertising company is collecting data on car preferences for men and women. The survey results are in the two-way frequency table shown.

		Car Preference					Total
		SUV	Sedan	Sports Car	Minivan	Truck	
Gender	Female	23	16	5	28	4	76
	Male	27	8	23	2	31	91
	Total	50	24	28	30	35	167

- Construct a conditional relative frequency distribution of car preference given gender.
  - What percent of females like sports cars and trucks?
  - What percent of males like sports cars and trucks?
3. The food services manager for a school district wants to see if there are any preferences for lunches based on age group at the high school. The results of the survey are shown.

		Lunch Preference		
		Chicken Nuggets	Pizza	Tacos
Class	Freshman	44	50	10
	Sophomore	39	45	15
	Junior	35	55	16
	Senior	30	66	7

- Construct a relative frequency distribution and a marginal relative frequency distribution of the data in the table.
- Does there appear to be an association between the class of the student and the type of lunch they prefer? Explain your reasoning.