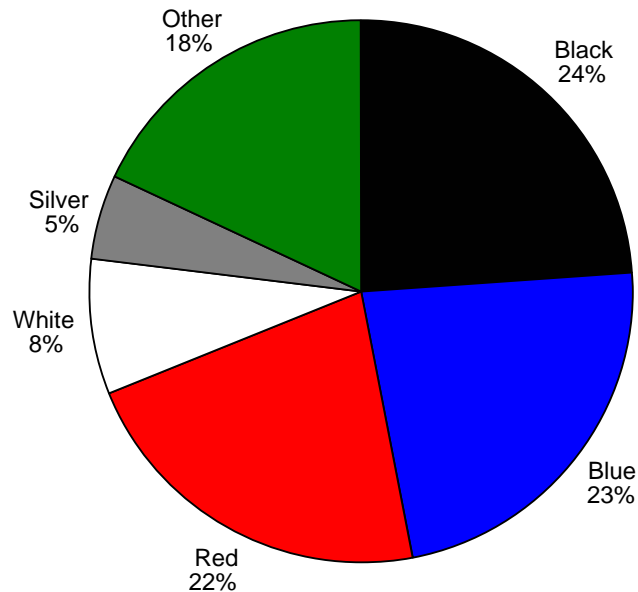


PROBLEM-OF-THE-DAY: ALGEBRA 1**WEEK:** November 26 to November 30**DAY:** Tuesday

RISD Objective: Given a circle (pie) graph, students will use it to answer questions, applying or finding the percents as necessary.

PROBLEM #64

Favorite Bicycle Colors (1989)



In 1989, Americans spent \$2,205,000 on bicycles.

1. How much money was spent on blue bicycles in 1989?
2. How much more money was spent on black bicycles than on white bicycles in 1989?
3. What is the angle measure for the red sector?
4. In 2004, Americans spent \$6,048,000 on bicycles. If the rate hasn't changed, how much money was spent on other colored bicycles in 2004?

MODEL SOLUTION #64

1. To find out how much money was spent on blue bicycles change 23% to decimal and then multiply decimal by total bicycles.

$$(0.23)(2,205,000) = 507,150$$

So, \$507,150 was spent on blue bicycles.

2. To find out how much money was spent on black bicycles change 24% to decimal and then multiply decimal by total bicycles.

$$(.24)(2,205,000) = 529,200$$

To find out how much money was spent on white bicycles change 8% to decimal and then multiply decimal by total bicycles.

$$(0.08)(2,205,000) = 176,400$$

Now subtract the two values

$$529,200 - 176,400 = 352,800$$

So, \$352,800 more was spent on black bicycles than white bicycles.

3. To find the angle measure for the red sector, change 22% to decimal and multiply it by 360.

$$(0.22)(360) = 79.2^\circ$$

So, the angle for the red sector is 79.2°

4. To find out how much money was spent on other bicycles in 2004 change 18% to decimal and then multiply decimal by \$6,048,000.

$$(0.18)(6,048,000) = 1,088,640$$

So, it was spent \$1,088,640 on other colored bicycles in 2004.