



1. In 2009, the federal government budget was \$3.1 trillion (\$3,100,000,000,000). The government was looking to cut costs.

a. If it decided to cut 1%, how much money did it cut?

b. If the government reduced the budget by 7%, how much money did it cut?

c. If the government eliminated \$93 billion (\$93,000,000,000) from the budget, what percentage did it cut?

2. Rachel is collecting donations for the local animal shelter. So far she has collected \$245, which is 70% of what she hopes to collect. How much money does Rachel plan to collect for the shelter?

3. Fill in the missing numbers below.

a.

$$\frac{9}{15} \cdot \frac{?}{?} = \frac{?}{60}$$

b.

$$\frac{7}{20} \cdot \frac{?}{?} = \frac{?}{110}$$

c.

$$\frac{44}{100} \cdot \frac{?}{?} = \frac{?}{60}$$

4. Identify the situations below as either dependent or independent events.

a. Flipping a “heads” on a quarter and then flipping another “heads.”

b. Choosing a jack from a standard deck of cards, not putting it back in the deck, and then choosing a king.

c. Picking a blue marble from a bag of marbles, putting it back, and then picking a blue marble again.

d. Rolling a 6 on a number cube three times in a row.

5. The Aloha Stadium in Honolulu, Hawaii, has seats for 50,000 people. At an upcoming football game, a company is planning to give away free hats to people based on where they are sitting.
- a. The seats are divided into 40 different sections. If hats are given in only 5 sections, what is the probability of sitting in a section that gets a hat?
- b. The company is going to choose 375 seats in each section to win the hats. There are 1250 seats in a section. What is the probability of sitting in a winning section AND in a winning seat? What is the probability of sitting in a winning section AND not in a winning seat?
- c. The company plans to give away 1875 hats. If you buy a ticket to the game, what is the probability that you will receive a hat? (assume that all 50,000 seats are filled)

6. Spend 10 minutes on IXL.