

## Exercises - Percent Word Problems

1

There are  $n$  candies in a jar. If one candy is removed, what percent of the candies are left in terms of  $n$ ?

- A)  $100(1-n)\%$   
 B)  $100\left(\frac{1}{n}-1\right)\%$   
 C)  $100\left(n-\frac{1}{n}\right)\%$   
 D)  $100\left(\frac{n-1}{n}\right)\%$

2

The price of a cellphone was discounted by 25% and then discounted an additional 20%, to become \$348. What was the original price of the cellphone before it was discounted twice?

- A) \$580.00  
 B) \$620.00  
 C) \$650.00  
 D) \$680.00

3

A chemist mixes a 40% acid solution and a 30% acid solution. How many liters of the 40% solution must be added to produce 50 liters of a solution that is 36% acid?

- A) 24  
 B) 26  
 C) 30  
 D) 32

4

Victor invests part of his \$5,000 in a savings account that pays 4.5% annual simple interest. He invests the rest in bonds that pay 8% annual simple interest. Let  $s$  be the amount invested in savings and  $r$  be the amount invested in bonds. Victor's total income in one year from these investments is \$305.50. Which of the following systems of equations represents this relationship?

- A)  $\begin{cases} 0.045s + 0.08r = 5,000 \\ s + r = 305.50 \end{cases}$   
 B)  $\begin{cases} 0.08s + 0.045r = 5,000 \\ s + r = 305.50 \end{cases}$   
 C)  $\begin{cases} s + r = 5,000 \\ 0.045s + 0.08r = 305.50 \end{cases}$   
 D)  $\begin{cases} s + r = 5,000 \\ 0.08s + 0.045r = 305.50 \end{cases}$

5

A sporting goods store added 50% profit cost and 8% tax to the price of a backpack, which then became \$129.60. What was the price of the backpack before adding profit and tax?

6

There are 800 students in a school and 45% of the students are male. If 30% of the male students and 25% of the female students play varsity sports, how many students play varsity sports?