

## MULTI-STEP PERCENT APPLICATION

When solving real-world percent questions, you can ask yourself the following questions to better understand what is happening and how you should go about solving the problem.

What information  
are you  
\_\_\_\_\_?

What are you  
\_\_\_\_\_ for?

Does your solution  
make sense in the  
context of the  
problem?

Discuss each term below and label the shopping bags as an increase or decrease to the original.



\_\_\_\_\_

Use your understanding of percents to answer the questions below.

1. Savannah works as a sales rep and receives \$23.80 for every \$140 she sells. What is her rate of commission?


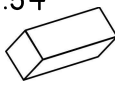
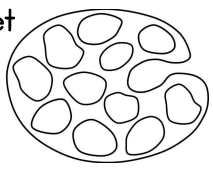
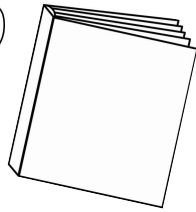
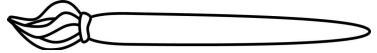
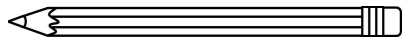
<b>I KNOW:</b>	<b>I NEED TO KNOW:</b>
<b>PLAN AND WORK:</b>	<b>SOLUTION:</b>

2. The shoe department is offering a sale of 15% off all shoes. If Mrs. Jeffery saved \$12.30, how much were the shoes full price?

<b>I KNOW:</b>	<b>I NEED TO KNOW:</b>
<b>PLAN AND WORK:</b>	<b>SOLUTION:</b>



Anderson's Art Supply Store has created a price list. Look over the price list and answer the questions 3-6.

<p><b>Colored Pencils (1 dz)</b> \$7.88</p> 	<p><b>Art Gum Erasers (1 dz)</b> \$6.54</p> 	<p><b>Paint Pallet</b> \$24.00</p> 	<p><b>Sketch Book</b> \$16.12</p> 
<p><b>Paint Brush</b> \$10.50</p> 	<p><b>Sketch Pencils (1 dz)</b> \$4.60</p> 		

<p>3. A customer is looking for items to get started painting. Mrs. Anderson offers her a paint pallet, a paint brush, and a sketch book. She tells the customer that if she buys all three, she will give her a 15% discount. Approximately how much will the customer save?</p>	<p>4. The last customer of the day is a loyal customer who brings in a \$15.00 off coupon. She purchases two paint brushes, one dozen colored pencils, and one sketch book. What percent did she save by using her coupon?</p>
<p>5. Mrs. Anderson pays her employees a five percent commission rate on their sales. At the end of the day, Arianna earned \$14.98 in commission. How much did Arianna sell that day?</p>	<p>6. Mr. Jamison, an art teacher, would like to purchase enough supplies to get his class stocked. He picks up 8 dozen sketch pencils, 6 dozen colored pencils, and 3 dozen art gum erasers. If the sales tax rate is 8%, approximately what will his bill be?</p>

Solve the percent application problem below.

7. Milton read 28% of his book on Friday. On Saturday, he read 46% of his book. He plans to finish reading the book on Sunday. If the book has 350 pages in total, how many pages will Milton read on Sunday?



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Use your understanding of percentages to complete the table below. Be sure to show your work.

PROBLEM	SET-UP	WORK AND SOLUTION
<p>1. Francis heard that a car stereo system was on sale for 30% off. If the sale price was \$57.75, what was the original price of the stereo?</p>		
<p>2. Mr. Robins earns a commission on each airfare he books. At the end of the day, he had booked \$208.60 worth of airfare and earned \$31.29. What is Mr. Robins' commission rate?</p>		
<p>3. The bill at a restaurant came to \$136.40. The patrons decided to leave a 15% tip. What was the total bill including tip?</p>		
<p>4. Winter coats are marked 70% off on February 1<sup>st</sup>. If a coat costs \$57.75 on January 31<sup>st</sup>, how much will it cost on February 1<sup>st</sup>?</p>		

Answer the multiple choice question below.

5. On Friday, 280 Fry Middle School students purchase pizza in the cafeteria. Thirty-nine percent purchased pepperoni pizza, 26% purchased hamburger pizza, and the rest purchased cheese pizza. How many students bought cheese pizza?

- A. 182      B. 147  
C. 98        D. 65

