AIM: Use multiple operations with percentages to solve real world problems

Grab a whiteboard, marker, eraser

Homework: None, Weekly Assignment 8 due Wednesday, Quiz Tomorrow
AIM: Student will use operations with percentages to find gratuity/tip, mark-up, mark-down, discount and tax

Vocabulary Review:

<table>
<thead>
<tr>
<th>Percent Vocab Word</th>
<th>What it means</th>
<th>How it will effect final answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gratuity/Tip</td>
<td>extra pay for a good job</td>
<td>Add</td>
</tr>
<tr>
<td>Mark-Up</td>
<td></td>
<td>Add</td>
</tr>
<tr>
<td>Mark-Down</td>
<td></td>
<td>Subtract</td>
</tr>
<tr>
<td>Discount</td>
<td></td>
<td>Subtract</td>
</tr>
<tr>
<td>Tax</td>
<td></td>
<td>Add</td>
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</tbody>
</table>
1) Suzanne bought a sweater at the sale price of $25. The original cost of the sweater was $40. What percent represents the discount that Suzanne received when buying the sweater?

A) 15%

B) 37.5%

C) 60%

D) 62.5%

Hint: Is there any way you can use the answer choices to help you?
2) A crystal vase was marked up 50% from an original cost of $80. If John bought the vase and paid 5% sales tax, how much in total did he pay?

1. How much was the vase marked up?
   \[
   0.5 \times 80 = 40
   \]

2. What is the price of the vase?
   \[
   40 + 80 = 120
   \]

3. How much is the tax on the vase?
   \[
   0.05 \times 120 = 6
   \]

4. What is the total price of the vase?
   \[
   120 + 6 = 126
   \]
3) A store purchased a rug and marked it up 120% from the original cost of $75. Then wanting to make room for summer inventory, the store placed the rug on sale for 75% off? What was the price of the rug after the discount?

a) What is the price of the rug after the mark-up?

b) What is the discounted price of the rug?

c) Will the store make money or lose money on the rug when they sell it? How much?
4) Kristen went on a shopping trip to the Riverhead outlets. She bought a pair of running shoes at the Nike outlet originally priced at $119.99 for 60% off. She had to pay the NY state sales tax of 8.875%. How much did she pay for the shoes?

Fill in the information you need to figure out to find the final price:

1 ____________________  2 ____________________  3 ____________________  4 Final Price
5) Amy, a salesperson, sold a rug originally at $50 on sale for 10% off. If Amy's commission is 20% of the sale price, how much commission did she make from the sale of the rug?

6) You have a coupon for an additional 25% off the price of any sale item at Kohls. The store has put a robotics kit on sale for 15% off the original price of $40. What is the price of the robotics kit after both discounts?