6.RP Kendall's Vase - Tax

Alignments to Content Standards: 6.RP.A.3

Task

Kendall bought a vase that was priced at $450. In addition, she had to pay 3% sales tax. How much did she pay for the vase?

Solutions

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Solution: Percent table

Students just beginning to study percents might work from a percent table.

<table>
<thead>
<tr>
<th>100%</th>
<th>10%</th>
<th>1%</th>
<th>2%</th>
<th>3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>$450.00</td>
<td>$45.00</td>
<td>$4.50</td>
<td>$9.00</td>
<td>$13.50</td>
</tr>
</tbody>
</table>

Adding the tax to the price of the vase gives the total cost of the vase:

13.50 + 450 = 463.50

Kendall paid $463.50 for the vase.

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Solution: Reasoning from a benchmark percent

Another approach is to find one percent of the $450, which is $4.50. Then 3% would be 3 times that amount which is $13.50.

Adding the tax to the price of the vase gives the total cost of the vase:

\[ 13.50 + 450 = 463.50 \]

Kendall paid $463.50 for the vase.

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Solution: Finding 3 percent of a quantity is the same as finding three-hundredths of that quantity

If students understand that finding 3% is the same as finding \( \frac{3}{100} \) of 450, then they can simply multiply to find the tax

\[ \frac{3}{100} \times 450 = 13.5 \]

Adding the tax to the original price will produce the total cost.

\[ 13.50 + 450 = 463.50 \]

Kendall paid $463.50 for the vase.