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1. At a local community college the cost per unit of instruction is being raised from $20.00 to $26.00. What percent increase is this?

\[
\frac{\text{The Amount of Increase}}{\text{Initial Tuition}} = \frac{6}{20} = \frac{30}{100} \Rightarrow x = 0.3
\]

Note: $26.00 - $20.00 = $6.00 of increase!

Therefore

\[ x = \frac{6}{20} = 0.3 \]

\[ x = 30\% \text{ Increase!} \]

2. A person whose salary is $53,500.00 receives a 4% pay cut. What is the salary decrease and what is the new salary?

\[
\frac{\text{The Amount of Decrease}}{\text{Initial Salary}} = \frac{0.04}{53,500.00} = \frac{2,140.00}{53,500.00} \text{ The Amount of Decrease!}
\]

The "New Salary" = \[\text{Initial Salary} - \frac{\text{The Amount of Decrease}}{\text{Initial Salary}}\]

\[= 53,500.00 - 2,140.00 = 51,360.00 \text{ New Salary!} \]
3. During a clearance sale, a pair of pants that originally sold for $54.95 is marked down to $32.97. What is the percent discount?

\[
\text{(The Amount of Discount)} = \left( \frac{\text{Original Price}}{\text{Discounted Price}} \right)
\]

\[
= 54.95 - 32.97
\]

\[
= 21.98 \quad \text{The Amount of Discount!}
\]

\[
\text{(The Amount of Discount)} = \left( \frac{\%}{\text{Discount}} \right) \left( \frac{\text{Original Price}}{\text{Price}} \right)
\]

\[
21.98 = x \cdot 54.95
\]

\[
\frac{21.98}{54.95} = \frac{54.95 \cdot x}{54.95}
\]

\[
0.4 = x
\]

\[
40\% = x
\]

So the percent discount is \(40\%\)!