MARK UPS (and TAXES)

Making Money! (and paying money)

"Buy low – sell high!"

Any business that wants to survive has to sell their goods and services for MORE than it COSTS them or they will go bankrupt.

> *Finding the delicate balance between a mark up that you makes you money, without offending customers, is a study that also involves math (we don't do that here).*

Example 1:

A store buys a pencil for $3.50 and marks it up 25%.

Determine the mark up and selling price.

First:

WHAT IS 25% OF $3.40?

$$\mathbf{X} = \frac{25}{100} \times \$3.40$$

$$\mathbf{X} = 0.25 \times \$3.40$$

$$\mathbf{X} = \$0.85$$ ***<<< THIS IS YOUR MARK UP***

$3.40 + $0.85 = $4.25 ***<<< THIS IS YOUR SELLING PRICE***

Example 2

A store buys a goldfish for $12 and sells it for $20.

Determine the percent mark up.

Mark up value:

$20 - $12 = $8

It was marked up $8

WHAT PERCENT IS 8 OUT OF 12?

$$\frac{X}{100} = \frac{8}{12}$$

"percent" means "over 100"
"out of" usually means "divide"

Multiply both sides by 100 to get rid of the 100

$$\frac{\cancel{100} \times X}{\cancel{100}} = \frac{8 \times 100}{12}$$

$$X = 66.6\%$$

Continue…

TAXES (and MARK UPS)

Paying Money (and Making Money!

Whether you like taxes or not, taxes pay for a lot of the things we have.

Roads Schools Doctors Police Medical
911 Services Unemployment Insurance Old Age Pension Parks
Legal Services Etc.

Here in British Columbia, we have two taxes.

7% PST (Provincial Sales Tax)

5% GST (Goods and Services Tax)

How much do you really pay? Pffft. It's just math.

Example 1:

A hamster costs $89, plus PST and GST.

Determine the total cost.

PST

7% Of $89 = X

$$\frac{7}{100} \times \$89 = X$$

$6.23 = X

GST

5% Of $89 = X

$$\frac{5}{100} \times \$89 = X$$

$4.45 = X

TOTAL COST = PRICE + PST + GST

TOTAL COST = $89 + $6.23 + $4.45

TOTAL COST = $99.68

Example 2:

Groceries are GST exempt (groceries have PST only)

A student buys $46.32 of groceries.

Determine the total cost.

$$\underline{\text{PST}}$$

$$7\% \quad \text{Of} \quad \$46.32 \quad = \quad X$$

$$\frac{7}{100} \quad x \quad \$46.32 \quad = \quad X$$

$$\$3.24 \quad = \quad X$$

TOTAL COST = PRICE + PST

TOTAL COST = $46.32 + $3.24

TOTAL COST = $49.56

Example 3:

A used car costs $11,200, plus PST and GST.

Determine the total cost.

$$\underline{\text{PST}}$$

$$7\% \quad \text{Of} \quad \$11{,}200 \quad = \quad X$$

$$\frac{7}{100} \quad x \quad \$11{,}200 \quad = \quad X$$

$$\$784 \quad = \quad X$$

$$\underline{\text{GST}}$$

$$5\% \quad \text{Of} \quad \$11{,}200 \quad = \quad X$$

$$\frac{5}{100} \quad x \quad \$11{,}200 \quad = \quad X$$

$$\$560 \quad = \quad X$$

TOTAL COST = PRICE + PST + GST

TOTAL COST = $11,200 + $784 + $560

TOTAL COST = $12,544