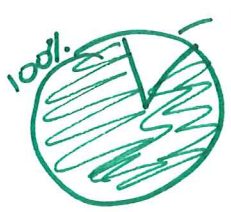
4.4 Discounts and Sales

Examples

Ex 1. Sally buys a new smartphone to replace the one she accidently dropped in her pool. An unlocked smartphone costs $499 but today only is 15% off.



100% - 15% = 85%

a) What is the new price of the phone before tax?

① 15% of $499
0.15 × 499
$74.85 saved.

② $499 − $74.85
= $424.15

85% of $499
0.85 × 499 = $424.15

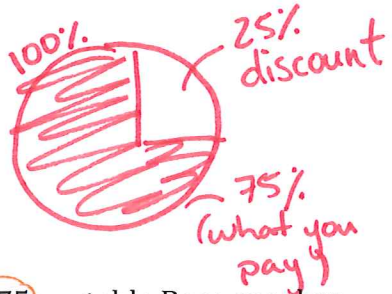
b) What is the final price, including tax? ⇝ PST + GST
7% + 5% = 12% tax total.

12% of $424.15
0.12 × 424.15
= $50.90 in tax
$424.15 + $50.90 = $475.05

OR
100% + 12% = 112%
112% of $424.15
1.12 × 424.15
= $475.05

Ex 2. In one step, how can you calculate the sale price of a $19.99 t-shirt that is 25% off?

75% of $19.99
0.75 × 19.99
= $14.99



Ex 3. To the nearest tenth of a percent, what is the percent discount if a $175 portable Bose speaker is on sale for $150?

$$\%\ \text{discount} = \frac{\text{discount amount}}{\text{original price}} \times 100$$

discount: $175 − $150 = $25

$$\frac{\$25}{\$175} \times 100 \rightsquigarrow 0.143\ldots \times 100$$

≈ 14.3%