## Activity 13 Assessment

 Solving Percent Problems| Solving Percent Problems |  |  |  |
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| Calculates a percent increase <br> In 2020, the price of a block of butter was $\$ 5.20$. <br> In 2 years, the price rose by about $11 \%$. <br> What was the price of butter in 2022? <br> The price of butter in 2022 is $(100 \%+11 \%)=111 \%$ of its price in 2020. <br> So, the price of butter in 2022 is: $\begin{aligned} & 111 \% \text { of } \$ 5.20 \\ = & 1.11 \times \$ 5.20 \\ \approx & \$ 5.77 \end{aligned}$ | Calculates a percent decrease <br> In 2001, the population of polar bears was about 1500. <br> By 2010, the population had decreased by $40 \%$. <br> What was the population of polar bears in 2010? <br> The population in 2010 was $(100 \%-40 \%)=60 \%$ of its population in 2001. <br> So, the population of polar bears in 2010 was: $\begin{aligned} & 60 \% \text { of } 1500 \\ = & 0.60 \times 1500 \\ = & 900 \end{aligned}$ | Solves a problem involving combined percents <br> A person buys a Canadian flag for \$15.99. <br> How much would it cost in your province? <br> For example, in SK: $6 \%$ PST and $5 \%$ GST $=11 \%$ tax <br> Total cost of the flag: $\begin{aligned} & 111 \% \text { of } \$ 15.99 \\ = & 1.11 \times \$ 15.99 \\ \approx & \$ 17.75 \end{aligned}$ | Solves a problem involving consecutive percents <br> In 2015, the average price of a house in Canada was \$413 000. <br> By 2020, this price had increased by about $28 \%$. <br> By the middle of 2022, the average price in 2020 had increased by a further $26 \%$. <br> What was the average price of a house in June 2022? $\begin{aligned} & \text { In } 2020 \text {, the price was: } \\ & 128 \% \text { of } \$ 413000 \\ & =1.28 \times \$ 413000 \\ & =\$ 528640 \end{aligned}$ <br> In 2022, the price was: $126 \% \text { of } \$ 528640$ $=1.26 \times \$ 528640$ $=\$ 666086.40$ <br> The average price of a house in 2022 was about $\$ 666000$. |
| Observations/Documentation |  |  |  |
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