Grade 11 Essential Math Credit Quiz

Key

1. Use the simple interest formula (I = Prt) to calculate the interest charged on a $9,500 loan at 4.75% for 7 years. (2 marks)

$$P \quad r \quad t$$
$$0.0475$$

$$I = 9500 \times 0.0475 \times 7 = \$ 3158.75$$

2. Sally is buying a new piano. The cash price is $2389.83 plus taxes (5% GST and 7% PST). The store offers an installment plan. The installment terms are $149 down and $249 a month for twelve months (all taxes are already included in the price).

a) Calculate the cash selling price of the piano. (2 marks)

GST $\quad 2389.83 \times 0.05 = 119.49$
PST $\quad 2389.83 \times 0.07 = 167.29$

Total
(cash selling price) $\quad = 2389.83 + 119.49 + 167.29$
$$= \$ 2676.61$$

b) Calculate the installment price of the piano. (2 marks)

$$\$149 + \underset{2988}{(249 \times 12)} = \$ 3137.00$$
down

c) Calculate the finance charge (extra) that Sally pays if she decides on the installment plan. (1 mark)

$$3137.00 - 2676.61 = \$ 460.39$$
installment plan $\qquad$ cash price with taxes.

Grade 11 Essential Math Credit Quiz

3. Mike takes out a $9,500 loan to buy a snowmobile. His bank offers him a 7-year loan at an interest rate of 4.75%. His monthly loan payment is $133.19.

   a) How many times will Mike make his monthly loan payment? (1 mark)

   12 times per year for 7 years

   $12 \times 7 = 84$ times!

   b) How much does Mike pay in total at the end of 7 years? (2 marks)

   $133.19 \times 84 = \$11,187.96$

   c) How much interest does Mike end up paying with this loan? (1 mark)

   11187.96
   − 9500

   $1687.96 interest

4. Approximately what interest rate would a credit card company charge? (1 mark)

   about 20%

   19.99 % ← common.

   19.49 %