

Chapter Review

1. Calculate each unit price.

a) 3 shrubs for \$145.50

$$\begin{aligned} & \$145.50 \div 3 \\ & = \$48.50/\text{shrub} \end{aligned}$$

c) 200 g for \$69.98

$$\$69.98 \div 200 = \$0.35/\text{g}$$

b) \$10.99 for 4 kg

$$\$10.99 \div 4 = \$2.75/\text{kg}$$

d) 250 L for \$362.50

$$\$362.50 \div 250 = \$1.45/\text{L}$$

2. Jelani is choosing between a 300 g package of cheddar cheese for \$4.57 and a 450 g package for \$7.65. Which package has a lower unit price?

$$\text{e.g., } \$4.57 \div 300 \text{ g} = \$0.015/\text{g}$$

$$\$7.65 \div 450 \text{ g} = \$0.017/\text{g}$$

The 300 g package has a lower unit price.

3. Dalton is trying to attract more members to his gym. Memberships usually cost \$649/year with a sign-up fee of \$75. He offers two promotions:

- Fitness promotion: no sign-up fee
- Strength promotion: 15% off total fee

Which promotion is less expensive for a 12-month membership?

$$\text{e.g., Fitness: } \$649$$

$$\text{Strength: regular price: } \$649 + \$75 = \$724$$

$$\text{discount: } 15\% \text{ of } \$724 = \$108.60$$

$$\text{cost: } \$724 - \$108.60 = \$615.40$$

The Strength promotion is less expensive.

4. Ramona is a travel agent. She has found a 30% off deal for her client. The regular price for the trip is \$850 per person. How much does the trip cost with the 30% discount?

$$\text{e.g., } \$850 \times 0.70 = \$595$$

The trip costs \$595.

5. Karlee provides maid service to residential homes. She would like to increase her prices by 15%. She currently charges \$18/h.

a) What would Karlee's new hourly rate be?

e.g., $\$18/\text{h} \times 1.15 = \$20.70/\text{h}$

Her new rate would be \$20.70/h.

b) Karlee is currently working 40 h a week. How much *more* would she be making after the increase?

e.g., $\$20.70 - \$18 = \$2.70$

$\$2.70 \times 40 = \108

She would be making \$108 more per week.

6. David wants to take cooking classes. One cooking school offers 12 classes for \$552.50. If he signs up before the end of the week, he will get a 20% discount.

a) How much will the classes cost with the 20% discount?

e.g., $\$552.50 \times 0.80 = \442.00

The classes will cost \$442.00.

b) How much would David be paying per class before the discount and after the discount?

e.g., $\$552.50 \div 12 \text{ classes} = \$46.04/\text{class}$

$\$442 \div 12 \text{ classes} = \$36.83/\text{class}$

David would be paying \$46.04 before the discount, and \$36.83 after the discount.

7. In 2010, many people travelled to Vancouver to participate in the Olympics. If an athlete from Japan brought 100 000 yen, how much is this in Canadian dollars if $\text{¥}1 \doteq \text{C}\0.011 ?

e.g., $\text{JP¥}100\ 000 \times 0.011 \text{ C}\$/\text{JP¥} \doteq \text{C}\1100

8. Jonathan travelled to Mexico for business. He paid C\$899 for the trip and spent an additional 1400 pesos while in Mexico.

a) Estimate the value of MX\$1400 in Canadian dollars.

e.g., $\text{MX}\$1400 \div 10 = \text{C}\140

b) Calculate the cost of Jonathan's trip in Canadian dollars.

$\text{MX}\$1400 \times \text{C}\$0.081/\text{MX}\$ \doteq \text{C}\113.40

$\text{C}\$899 + \text{C}\$113.40 = \text{C}\$1012.40$

