

Build Your Skills

1. a) Calculate annual danger pay.

$$\$1900.00 \times 12 = \$22\,800.00$$

Add annual salary and danger pay.

$$\$52\,250.00 + \$22\,800.00 = \$74\,050.00$$

Julia's annual salary will be \$74 050.00.

b) Divide the total by 12 to find the monthly amount.

$$\$74\,050.00 \div 12 = \$6170.83$$

Julia's monthly salary will be \$6170.83.

2. Calculate 1% of the total tips.

$$\$760.00 \times 0.01 = \$7.60$$

David's share of the tips will be \$7.60.

3. Calculate Tristan's wages for 4 weeks.

$$\$10.00/\text{h} \times 5 \text{ h} = \$50.00$$

$$\$50.00 \times 16 \text{ days} = \$800.00$$

Calculate the tips he expects to earn in 4 weeks.

$$\$650.00 \times 0.15 = \$97.50$$

$$\$97.50 \times 16 \text{ days} = \$1560.00$$

$$\$800.00 + \$1560.00 = \$2360.00$$

Tristan will earn about \$2360.00 in 4 weeks.

4. a) Let x = number of hours worked

Let y = number of workers per shift

Let z = amount of tips

$$x (\$10.00/\text{h}) + \frac{z}{y} = \text{Layla's gross earnings}$$

$$\text{b) } 6 (\$10.00) + \frac{\$53.62}{3} = \$77.87$$

No, Layla is incorrect. She earned \$77.87, not \$79.13, during this shift.

5. First, calculate 15% of \$42 000.00 to find the bonus amount.

$$\$42\,000.00 \times 0.15 = \$6300.00$$

His bonus is \$6300.00.

Add the base salary and the bonus to get the total salary.

$$\$42\,000.00 + \$6300.00 = \$48\,300.00$$

Ivan's total salary will be \$48 300.00.

6. Calculate the annual isolation allowance.

$$\$41\,610.52 - \$38\,901.76 = \$2708.76$$

Divide the annual isolation allowance by 12 to get the monthly amount.

$$\$2708.76 \div 12 = \$225.73$$

Francis's monthly isolation allowance is \$225.73.

7. a) Find the number of hours in Jamila's shift that are eligible for a shift premium.

$$11 - 5 = 6 \text{ h}$$

Jamila will earn the shift period for 6 hours of her shift.

b) Method 1

Calculate Jamila's regular pay for the shift.

$$\$17.36/\text{h} \times 8 \text{ h} = \$138.88$$

Calculate the amount of the shift premium.

$$\$2.00/\text{h} \times 6 \text{ h} = \$12.00$$

Add the two amounts.

$$\$138.88 + \$12.00 = \$150.88$$

Jamila will earn \$150.88 for her shift.

Method 2

Calculate her regular pay.

$$\$17.36/\text{h} \times 2 \text{ h} = \$34.72$$

Calculate her shift premium pay.

$$\$19.36/\text{h} \times 6 \text{ h} = \$116.16$$

Add the two amounts.

$$\$34.72 + \$116.16 = \$150.88$$

Rishma will earn \$150.88 for her shift.

c) Calculate her earnings at the shift premium rate.

$$6 \text{ h} \times 5 \times \$19.36/\text{h} = \$508.80$$

Then calculate her total earnings for the week.

$$(\$17.36/\text{h} \times 10 \text{ h}) + \$508.80 = \$682.40$$

Divide her shift premium amount by her total earnings.

$$\$508.80 \div \$682.40 = 0.746$$

75% of her weekly wage is at the shift premium.

d) Divide her weekly hours at the regular rate by her total weekly hours.

$$10 \div 40 = 0.25$$

25% of her weekly schedule is regular hours.

Extend Your Thinking

8. a) To find Rosa's mileage allowance, multiply the number of kilometres she drove by the rate paid for one kilometre.

$$536 \text{ km} \times \$0.605/\text{km} = \$324.28$$

Rosa will be paid \$324.28 for the trip.

b) Answers will vary but students may consider the following factors: the costs of fuel, insurance, and repair and maintenance costs such as oil changes and tune-ups. In most situations, this mileage allowance would probably be considered fair, although some students may consider that too much wear and tear on a personal vehicle might make the compensation level seem too low.