Additional Earnings

2.3

NEW SKILLS: WORKING WITH INCOME SUPPLEMENTS

A bonus is an extra amount earned for a job well done or for exceeding expectations, and is paid in addition to regular pay and/or overtime pay. It may be a lump sum or a percentage of earnings. Danger pay, isolation pay, a shift premium, and tips are also paid in addition to regular pay.

For more information, see page 72 of *MathWorks 10*.

Example 1

Marika works during the summer as a supervisor of a children's program at the local community centre. She has a good reputation with the children and her employer wants her to come back next year. Marika earned $3600.00 during the summer and her employer offers her a 15% signing bonus if she will sign up for next year. If Marika signs up, how much will she get as a signing bonus?

SOLUTION

Find 15% of Marika's wages.

$0.15 \times \$3600.00 = $ _____

She will make _____ as a signing bonus.

BUILD YOUR SKILLS

1. Chester wants to clear out his used car sales lot in Surrey, BC. To do so, he offers his employees an incentive for each car they sell. They will receive bonuses in the following amounts:

   - $50.00 for each car they sell for more than $20 000.00

   - $40.00 for each car they sell between $15 000.00 and $19 999.00

   - $30.00 for each car they sell between $10 000.00 and $14 999.00

   - $25.00 for each car they sell below $10 000.00

   Gerry sells cars worth $14 895.00, $19 998.00, $15 675.00, $7250.00, and $15 229.00. What is his bonus pay?

2. Raymond receives isolation pay for working in Wabasca, AB. If his regular pay is $2245.00/month, and he is offered a bonus of 12% or $275.00/month, which should he take?

3. Darren works as a logging machine operator. His salary is $24.80/h. Due to the dangerous nature of his job, he makes 38% more per hour than Sean, who is a forklift operator. How much do Darren and Sean each make in an 8-hour day?

Example 2

Conchita works as a bus driver for a transit company. Since busy times of the day require more drivers than midday, the company requires that some employees work split shifts. The bus company offers a 12% shift premium for the second shift to anyone that has a 4-hour break between the end of one shift and the beginning of the next.

If Conchita earns $17.82/h, how much will she earn during the week?

Time Card: Conchita		
Day	**Shift 1**	**Shift 2**
Monday	6:15–11:00	3:30–6:45
Tuesday	6:15–10:15	3:30–7:15
Wednesday	12:00–4:00	6:00–9:00
Thursday	3:30–7:30	
Friday	8:00–11:00	2:00–4:45

SOLUTION

Determine the days on which Conchita will receive a shift premium.

Monday - _____ @ premium
Tuesday _____ @ Premium

Wednesday: _____
Thursday: _____

Friday: _____

Calculate the shift premium rate by find 112% of her regular wage (as a decimal, 1.12).

   $1.12 \times \$17.82 =$ _____

Calculate the hours worked in each shift and the income per shift.

Time Card: Conchita		
Day	**Shift 1**	**Shift 2**
Monday	4.75 × $17.82 = $84.65	3.25 × $19.96 = $_____
Tuesday	4 × $17.82 = $71.28	3.75 × $19.96 = $_____
Wednesday	4 × $17.82 = $71.28	3 × $17.82 = $_____
Thursday	4 × $17.82 = $71.28	
Friday	3 × $17.82 = $53.46	2.75 × $17.82 = _____

Calculate total income by adding.

   _____ + _____ + _____ + _____ + _____ + _____ =

Conchita will earn $_____ during the week.

ALTERNATIVE SOLUTION

Determine the number of hours for which she earned regular pay.

Monday: 4.75 hours
Tuesday: 4 hours
Wednesday: 7 hours
Thursday: 4 hours
Friday: 5.75 hours

Total: 25.5 hours

Add up the number of hours for which she received a shift premium.

Monday: 3.25 hours
Tuesday: 3.75 hours

Total: 7 hours

Calculate her shift premium rate by finding 112% of her regular wage.

$$112 \div 100 = 1.12$$
$$1.12 \times \$17.82 = \$19.96$$

Calculate her regular income and her premium income, and then add the two.

Regular income:

$$25.5 \text{ hours} \times \frac{\$17.82}{\text{hour}} = \$454.41$$

Premium income:

$$7 \text{ hours} \times \frac{\$19.96}{\text{hour}} = \$139.72$$

$$\$454.41 + \$139.72 = \$594.13$$

Conchita will earn $594.13 during the week.

This answer differs from the first solution by $0.01, due to rounding in the first solution.

BUILD YOUR SKILL

4. Regular hours at the computer repair shop where Denise works are 9:00 am to 5:00 pm, Monday to Friday. Her boss has offered a shift premium of $1.75/hour to anyone who will work after 5:00 pm or on Saturday. Last week, Denise worked the following hours:

   • Monday: 9:00 am–5:00 pm

   • Tuesday: 2:00 pm–8:00 pm

   • Wednesday: 2:00 pm–7:00 pm

   • Thursday: 12:00 pm–8:00 pm

   • Saturday: 9:00 am–3:00 pm

   If her regular pay was $15.25/h, how much did she earn last week?

5. Drivers for the Fast Delivery Parcel Company are offered a shift premium if they drive the night shift (after 8:00 pm) to deliver parcels by 9:00 the next morning. Baljeet's schedule last week was as follows:

   • Monday: 12:00 pm–7:00 pm

   • Tuesday: 9:00 am–5:00 pm

   • Wednesday: 6:00 pm–12:00 am

   • Thursday: 12:00 pm–8:00 pm

   • Friday: 3:00 pm–9:00 pm

   His regular pay is $12.75/h, and the shift premium is $7.00/h. How much did he make last week?

6. Chen is offered isolation pay of $1250.00 for a job in northern Manitoba. Alternatively, he can have a bonus payment of 28% of his salary. If his salary is $532.00/wk, which is the better option if it takes 10 weeks to complete the job?

Example 3

Suzette works as a waitress in a local café in Selkirk, MB. Yesterday she made $165.32 in tips. If this was 15% of the bills she collected, how much were the bills?

SOLUTION

Let x be the total of the bills. Use proportional reasoning.

$$\frac{15}{100} = \frac{165.32}{x}$$

$x =$ _ _ _ _ _ _ _ _ _

Her orders totalled _____.

ALTERNATIVE SOLUTION

You know that $165.32 equals 15% of the total orders. Use this to calculate 1% of the orders.

$165.32 \div 15 \approx \$11.0213$

Multiply this number by 100 to get 100% of the total orders.

$11.0213 \times 100 = \$1102.13$

Suzette's orders totalled $1102.13.

BUILD YOUR SKILL

7. Kirsten earns a base salary of $8.20/h plus tips. On a typical day, she bills her customers $950.00, and her tips average 15%. What is Kirsten's average daily income with tips for an 8-hour day?

8. Mandeep is at a restaurant in Prince Rupert, BC. He has decided that 15% is too much to leave for a waiter who did not provide good service. He left $3.00 on a meal that cost $24.75. What percentage tip did he leave?

9. Rosita earned $408.65 working 35 hours at $8.21/h plus tips. How much did she make in tips?

In most restaurants, 15% is the average expected tip amount. A quick way to estimate a 15% tip is to round off your bill, find 10% by moving the decimal one place to the left, and then add half of that number to itself.

For example, if the bill is $68.89, round up to $70.00.

10% is $7.00.

Half of $7.00 is $3.50.

$7.00 + $3.50 = $10.50

The total tip would be $10.50. This is slightly more than 15% because you rounded up, so you may want to pay about $79.00.

PRACTISE YOUR NEW SKILLS

1. Parminder is working at an isolated weather station in the Yukon. She earns an annual salary of $45 650.00 plus $780.00/month for isolation pay. If she works at the station for 8 months of the year, what will her annual income be?

2. Hilda works as a live-in nanny. She earns $11.25/h plus room and board. If Hilda works over 40 h in one week, her boss gives her a bonus of $8.50/h for each extra hour. If Hilda works 57.5 h in one week, how much does she earn?

3. Restaurant sales totalled $40 568.00 one month, and the average tip was 15%.

   a) How much would each of the three waiters make in tips if they shared equally?

   b) If they give 25% of their tips to the kitchen staff, how much will each waiter make?

4. Franco earns $17.23/h, time and a half overtime, and a shift bonus of $2.65 for split shifts. If he worked a total of 43.5 hours, 18 of which were split shifts, how much did he earn if a regular work week was 38.5 hours?

5. Horace works as a door-to-door salesman in rural Alberta and must use his own car. He is paid $0.45/km for each kilometre he drives, plus 8% of sales. If he drove 2354 km and sold $47 854.00 of merchandise, how much would his pay cheque be?