

Homework Questions

5. Marlene is a website designer. In January, she creates a website for a new client, charging \$13 000.00. Marlene bids on and obtains a maintenance contract for the balance of the year that will pay her \$200.00/month, beginning in February.

- a) How much will the maintenance contract be worth? $11 \times 200 = \$2200$
- b) How many hours a month do you think would be reasonable to spend on website maintenance, given the contract amount? 10 hrs
- c) How much will Marlene earn this year from this client?

$$13000 + 2200 = \$15200 \text{ total}$$

6. William is a salesperson at an electrical supply company. He earns a base salary of \$24 000.00 a year plus a commission of 12% on electrical supplies such as wire, switches, and fixtures. If William aims to earn a total of \$32 000.00 a year, how many dollars' worth of electrical supplies will he need to sell?

% of (Sales)?

$$\text{Salary} + \text{Comm} = \text{TOTAL}$$

$$24000 + 0.12x = 32000$$

$$0.12x = 8000$$

$$x = \frac{8000}{0.12} = \$66666.67 \text{ in Sales}$$

Additional Earnings



MATH ON THE JOB

The paintings, sculptures, and carvings of over 40 Nova Scotia folk artists are displayed in the Black Sheep Gallery in Jeddore, Nova Scotia. The gallery, located in a converted fish plant, is owned and operated by Audrey Sandford. Audrey grew up near Cobourg, Ontario, and attended the Ontario College of Art for two years. Along with operating her gallery, she is also responsible for maintaining its website, as well as advertising and promoting the gallery.

"I use math in my work to calculate prices, taxes, framing and displays, shipping costs, and crate or box sizes. When I sell a piece of art that I have taken on consignment, the costs of framing any pictures or manufacturing any museum mounts will be added to the selling price of the item and recovered," Audrey says.

Some art gallery employees earn a **bonus** as well as a base salary. Assume Audrey pays an employee a bonus of 3% of the sales price when a work is sold to a client. If the employee sells a customer a Joe Norris painting for \$8500.00, what bonus will she earn?



Audrey selects, purchases, and prices all of the art displayed in her gallery and on her website.

SOLUTION

Calculate the bonus earned on the sale.

$$\$8500.00 \times 0.03 = \$255.00$$

The employee will earn \$255.00 on the sale of the painting.



TIPS...

It is common for people in service industry jobs to earn tips from satisfied customers.

NOTE: a sign of appreciation





Bonus

extra pay earned when certain conditions of employment have been met or exceeded



Shift Premium

extra payment
for
non-standard
work hours



Other Incentives...

- danger pay
- isolation pay
- northern allowance



EX #1: Your restaurant gives 5% of the tips received in a shift to employees working in the kitchen. If \$2100.00 is received in tips, and there are 5 people working in the kitchen, how much will each person receive?

$0.05 * 2100$	105
Ans / 5	21

Handwritten calculation:
 $\frac{5\%}{5} \Rightarrow 1\%$
 $1\% \text{ of } 2100$
 $\$21$

EXAMPLE #2:

Wendy has a summer job working as a waitress. She earns \$9.50 /hr plus tips. Calculate her **gross pay** if she worked 48 hours one week and kept 85 % of her \$234.50 in tips. She receives time and one half for hours worked beyond 40.

Reg	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">$40 * 9.50$</td> <td style="text-align: right; width: 20%;">380</td> </tr> <tr> <td>$8 * 9.5 * 1.5$</td> <td style="text-align: right;">114</td> </tr> <tr> <td>$0.85 * 234.5$</td> <td style="text-align: right;">199.325</td> </tr> <tr> <td style="border-top: 1px solid black;">■</td> <td style="text-align: right; border-top: 1px solid black;"> $+ 199.325$ $\underline{\hspace{1.5cm}}$ \$ 693.33 </td> </tr> </table>	$40 * 9.50$	380	$8 * 9.5 * 1.5$	114	$0.85 * 234.5$	199.325	■	$+ 199.325$ $\underline{\hspace{1.5cm}}$ \$ 693.33
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OT									
Tips									

Example #3...

2. You worked a four-hour shift as a server and your customer bills totalled \$2500.00 before tips. Your rate of pay is \$10.00/h.

If all your customers tipped you 10%, how much did you earn an hour in wages and tips?

tips	tips / hour	wages + tips / hour
$\$2500 \times 0.10$	$\frac{\$250}{4}$	$\$62.5 + \10.00
\$250	\$62.5	\$72.5

290



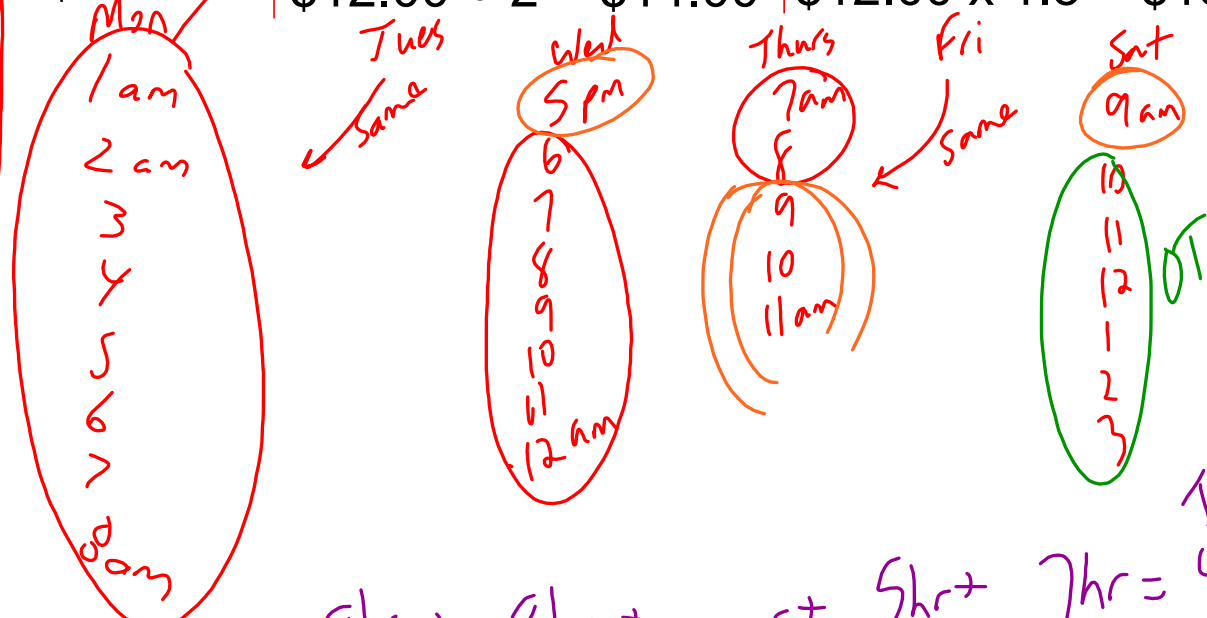
LAST one...



Jacob works as a stock clerk for a grocery store in Labrador City, NL. His regular pay is \$12.00 an hour, but he earns a shift premium of \$2.00 an hour for any hours he works between 5:00 pm and 8:00 am. Jacob also earns 1.5 times his pay rate in overtime for any hours he works above 35 hours a week. His timesheet is shown below. *Find the GROSS PAY!*

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12:00 am – 8:00 am	12:00 am – 8:00 am	4:00 pm – 12:00 am	6:00 am – 11:00 am	6:00 am – 11:00 am	8:00 am – 3:00 pm

Regular time: $\$12.00$ (8 hrs)
 Regular time + premium: $\$12.00 + 2 = \14.00 (8h + 8h + 7h + 2h + 2h = 27 hrs)
 Overtime: $\$12.00 \times 1.5 = \18.00 (6 hrs)



8hr + 8hr + 8hr + 4hr + 4hr + 7hr = 41 hrs
 - 35

 6 hrs OT

8*12	96	Reg
27*14	378	Prem
6*18	108	OT
+		
9582		



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Regular time: \$12.00 | Regular time + premium: \$12.00 + 2 = \$14.00 | Overtime: \$12.00 x 1.5 = \$18.00

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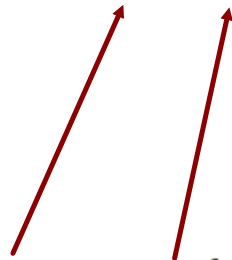
Premium Hours = 27 hours
Regular Hours = 8 hours
 Total # of hours = 35 hours

Overtime:
 41
-35
 6

Regular **Paid** Hours:

$$\begin{array}{r} 14 - 6 \\ \hline 8 \end{array}$$

Premium Hours: 27 hours x \$14.00 = \$378
 Regular Hours: 8 hours x \$12.00 = 96
 Overtime Hours: 6 hours x \$18.00 = 108
 \$582



What percentage of his weekly earnings are paid at the regular rate?

Formula:

$$\frac{\text{regular paid}}{\text{GROSS}}$$

$$\frac{96}{582} = 0.16 = 16\%$$



HOMEWORK...

Check out pages 76 and 77
questions 1 - 8

2.3 Build Your Skills Detailed Solutions.pdf



Worksheet - Alternative Ways to Earn Money.pdf



Attachments

2.3 Build Your Skills Detailed Solutions.pdf

Worksheet - Alternative Ways to Earn Money.pdf