

7. Find the amount you need to invest to earn \$450 interest, given 7 years at 8% simple interest.

$$P = \frac{I}{rt} = \frac{450}{(0.08)(7)} = \boxed{\$803.57}$$

8. Jack works for a deck and fence building company. He is paid an hourly wage of \$20.50. He usually works 8h a day, 5 days a week. When he works more than 40 h in a week, he earns time and a half. What is Jack's gross income for working 52h in a week?

$$\begin{array}{r} 40 \times 20.50 = 820 \\ 12 \times 20.50 \times 1.5 = 369 \\ \hline \boxed{\$1189} \end{array}$$

9. Jared earns an annual salary of \$55 300. This year he will receive a 2% bonus. Marie earns \$440/week in wages and \$150/week in tips. Who earned more this year?

<p><u>Jared</u></p> $55\,300 \times 1.02 = \$56\,406$	<p><u>Marie</u></p> $\begin{array}{r} 440 \times 52 = 22\,880 \\ 150 \times 52 = 7\,800 \\ \hline \boxed{\$30\,680} \end{array}$
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10. Chantelle works 35h a week at the zoo earning \$15.25/h. Her supervisor's annual salary is \$33 280. What is the difference in their weekly gross incomes?

$$\begin{array}{r} 33\,280 \div 52 = \$640/\text{wk} \\ 35 \times 15.25 = \$533.75/\text{wk} \\ \hline \boxed{\$106.25/\text{wk}} \end{array}$$

11. Pam earns 8% straight commission on her monthly sales of beauty products. Last month she sold \$24 558 in merchandise. Lucy works in an office earning a weekly salary of \$525. Who had the higher gross income for the month?

<p><u>Pam</u></p> $24\,558 \times 0.08 = \$1\,964.64/\text{month}$	<p><u>Lucy</u></p> $\begin{array}{r} \$525/\text{wk} \\ \times 4 \\ \hline \$2\,100/\text{month} \end{array}$
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