



→ assume he works 52 weeks/yr here...

- 1) Marty earns \$33.75 per hour for 39 hours work per week gross pay as a manager. If Marty has annual federal and provincial taxes of \$14876, CPP of \$2564.10, EI of \$836.19, what is his **net semi-monthly pay**?

$$\text{Annual Gross} = \$33.75/h \times 39h \times 52 \text{ wks} = \boxed{\$68,445}$$

$$\begin{aligned} \text{Annual Net} &= \text{Gross} - \text{Tax} - \text{CPP} - \text{EI} \\ &= \$68445 - \$14876 - \$2564.10 - \$836.19 \\ &= \boxed{\$50,168.71} \end{aligned}$$

$$\text{Semi-monthly Net} = \frac{\text{Annual Net}}{24} = \frac{\$50,168.71}{24} = \boxed{\$2090.36}$$

net semi-monthly pay:

- 2) Amy's **semi-monthly net** pay is \$2460. She pays annual income taxes of \$16 779.75, CPP of \$2564.10, and EI of \$836.19. What is Amy's **hourly gross** pay if she works a 43 hour work week? Assume 52 weeks

$$\text{Annual Net} = \$2460 \times 24 = \boxed{\$59,040}$$

$$\begin{aligned} \text{Annual Gross} &= \text{Net} + \text{deductions!} \\ &= \$59,040 + \$16,779.75^{\text{tax}} + \$2,564.10^{\text{CPP}} + \$836.19^{\text{EI}} \\ &= \boxed{\$79,220.04} \end{aligned}$$

$$\text{Hourly Gross} = \frac{\$79,220.04}{52 \text{ weeks} \times 43 \text{ hours/wk}} = \boxed{\$35.43/\text{hr}}$$

gross

- 3) Flora's **gross annual income** in 2019 is \$88 000. She pays \$15 809 in personal tax, \$2564 in CPP, and \$836 in EI. What is Flora's **monthly net pay**? What is her **bi-weekly net pay**?

$$\begin{aligned} \text{Annual Net} &= \text{Gross} - \text{Tax} - \text{CPP} - \text{EI} \\ &= \$88,000 - \$15,809 - \$2,564 - \$836 \\ &= \boxed{\$68,791 \text{ net/yr}} \end{aligned}$$

every 2 weeks... $\frac{52}{2} = 26!$

monthly net:

$$\frac{\text{Annual Net}}{12 \text{ mo/yr}} = \frac{\$68,791}{12} = \boxed{\$5,732.58}$$

Bi-weekly net:

$$\frac{\text{Annual Net}}{26} = \frac{\$68,791}{26} = \boxed{\$2,645.81}$$

Monthly Net Pay: $\frac{\$68,791}{12} = \$5,732.58$
 Bi-weekly Net Pay: $\frac{\$68,791}{26} = \$2,645.81$

- 4) Determine the amount of total tax on gross earnings of \$47 000. Assume CPP and EI have been paid and they are tax credits.

under 55300 → CPP: $(\text{gross} - 3500) \times 0.0495 = (47000 - 3500) \times 0.0495 = 43500 \times 0.0495 = \boxed{\$2153.25}$

under 51300 → EI: $\text{gross} \times 0.0163 = 47000 \times 0.0163 = \boxed{\$766.10}$

Total (CPP + EI):

$$\begin{array}{ccc} 2153.25 & + & 766.10 & = & \boxed{\$2919.35} \\ \text{CPP} & & \text{EI} & & \end{array}$$

Fed tax: B1 = Max = \$6887.40 amount @ 20.5%
 B2 minimum → B2 = $47000 - 45916 = \$1084 \times 0.205 = \underline{\$222.22}$

$$\frac{\$6887.40}{\text{B1}} + \frac{\$222.22}{\text{B2}} = \boxed{\$7109.62}$$

Fed Tax Credits: $= (\text{Basic Fed credit} + \text{CPP/EI}) \times 0.15$
 $= (12813 + 2919.35) \times 0.15$
 $= (15732.35) \times 0.15 = \boxed{\$2359.85}$

* Fed Total Tax: $= \text{Fed. Tax} - \text{Fed Tax Credits}$
 $= \underline{\$7109.62} - \underline{\$2359.85} = \boxed{\$4749.77}$

Prov tax: B1 = max = \$1968.24 amount @ 7.70%
 B2 minimum → B2 = $47000 - 38898 = \$8102 \times 0.077 = \underline{\$623.85}$

$$\frac{\$1968.24}{\text{B1}} + \frac{\$623.85}{\text{B2}} = \boxed{\$2592.09}$$

Prov Tax Credits: $= (\text{Basic Prov. credit} + \text{CPP/EI}) \times 0.0506$
 $= (10207 + 2919.35) \times 0.0506$
 $= (13126.35) \times 0.0506 = \boxed{\$664.19}$

* Prov Total Tax: $= \text{Prov Tax} - \text{Prov. Tax Credits}$
 $= \underline{\$2592.09} - \underline{\$664.19} = \boxed{\$1927.90}$

Total Tax:

$$= \frac{\text{Total Fed Tax}}{\underline{\$4749.77}} + \frac{\text{Total Prov Tax}}{\underline{\$1927.90}} = \boxed{\$6677.67}$$

5) Trevor works 36 h per week, 50 weeks a year, making \$38/h. What is his net pay per hour after paying federal and provincial taxes, plus CPP and EI.

Gross pay: $\$38 \times 36h \times 50 = \68400

over 55300
 CPP: = max = $\$2564.10$

over 51300
 EI: = max = $\$836.19$

Total (CPP + EI):
 $\$2564.10 + \$836.19 = \$3400.29$

Fed tax: B1 = max = $\$6887.40$ amount @ 20.5%

B2 = $68400 - 45916 = \$22484 \times 0.205 = \4609.22

$\frac{\$6887.40}{B1} + \frac{\$4609.22}{B2} = \$11496.62$

Fed Tax Credits: = (Basic Fed. Credit + CPP/EI) $\times 0.15$
 = $(12813 + 3400.29) \times 0.15$
 = $(16213.29) \times 0.15 = \2431.99

* Fed Total Tax: = Fed Tax - Fed. Tax Credits
 = $\$11496.62 - \$2431.99 = \$9064.63$

Prov tax: B1 = max = $\$1968.24$ amount @ 7.7%

B2 = $68400 - 38898 = \$29502 \times 0.077 = \2271.65
 $\frac{\$1968.24}{B1} + \frac{\$2271.65}{B2} = \$4239.89$

Prov Tax Credits: = (Basic Prov. Credit + CPP/EI) $\times 0.0506$
 = $(10207 + 3400.29) \times 0.0506$
 = $(13607.29) \times 0.0506 = \688.53

* Prov Total Tax: = Prov Tax - Prov. Tax Credits
 = $\$4239.89 - \$688.53 = \$3551.36$

Annual Net pay: = Gross - CPP/EI - Fed. Tax - Prov. Tax
 = $68400 - 3400.29 - 9064.63 - 3551.36 = \52383.72

Hourly Net pay: TURN OVER!

$\frac{52383.72}{\text{annual net}} \div \frac{50}{\text{weeks worked/yr}} \div \frac{36}{\text{hrs/week}} = \$29.10/\text{hr net}$ 😊

6) Jaclyn works 40 h per week, 52 weeks a year, making \$28/h. What is her net pay per hour after paying federal and provincial taxes, plus CPP and EI.

Gross pay: $\$28 \times 40 \times 52 = \58240

CPP: = max = $\$2564.10$

EI: = max = $\$836.19$

Total (CPP + EI):

$\$2564.10 + \$836.19 = \$3400.29$

Fed tax:

B1 = max = $\$6887.40$

B2 = $58240 - 45916 = \$12324 \times 0.205 = \2526.42 (amount @ 20.5%)

B2 minimum

$\$6887.40 + \$2526.42 = \$9413.82$

Fed Tax Credits:

= (Basic Fed Credit + CPP/EI) $\times 0.15$

= (12813 + 3400.29) $\times 0.15$

= (16213.29) $\times 0.15 = \$2431.99$

Fed Total Tax:

= Fed Tax - Fed Tax Credits

= $\$9413.82 - \$2431.99 = \$6981.83$

Prov tax:

B1 = max = $\$1968.24$

B2 = $58240 - 38898 = \$19342 \times 0.077 = \1489.33 (amount @ 7.7%)

B2 minimum

$\$1968.24 + \$1489.33 = \$3457.57$

Prov Tax Credits:

= (Basic Prov. Amount + CPP/EI) $\times 0.0506$

= (10207 + 3400.29) $\times 0.0506$

= (13,607.29) $\times 0.0506 = \$688.53$

Prov Total Tax:

= Prov Tax - Prov Tax Credits

= $3457.57 - 688.53 = \$2769.04$

Annual Net pay:

= Gross - CPP/EI - Fed Tax - Prov Tax

= $58240 - 3400.29 - 6981.83 - 2769.04$

= $\$45088.84$

Hourly Net pay:

$\$45088.84 \div 52 \div 40 = \$21.68/\text{hr net}$