

**Practice MIDTERM – Finances**

1. By what do you multiply a number if you want to increase it by 15%?

$$1.15$$

2. By what do you multiply a number if you want to decrease it by 15%?

$$0.85$$

3. Calculate 25% of 2500\$.

$$0.25 \times 2500 = \$625$$

4. Calculate 3% of 1000\$.

$$0.03 \times 1000 = \$30$$

5. Explain the difference between net income and gross income.

gross income: all the money that a person earns before deductions.

net income: the money that's left after all deductions

6. How often do people get paid? Use the proper vocabulary.

- by the job
- daily
- weekly
- bi-weekly
- monthly
- bi-monthly

7. You are paid \$13 per hour for 37 hours a week. You are paid double when you do overtime. Last week you worked 42 hours. What is your gross income?

$$13 \times 37 + 26 \times 5 = \$611$$

8. Sally earns \$1200 per month, plus 7% commission on her sales. Last month, she sold \$34500 worth of goods. What was her gross income?

$$1200 + 0.07 \times 34500 = \$ 3615$$

9. Jules works 35h per week at a restaurant. He is paid \$13.50/hour and gets on average \$160 per week in tips. What is his weekly gross income?

$$13.5 \times 35 + 160 = \$ 632.50$$

10. Stéphane has a weekly gross income of \$2000. Calculate his EI and CPP deductions for each pay period.

$$\text{Annual gross income: } 2000 \times 52 = \$ 104000 \text{ (more than max)}$$

$$\Rightarrow \text{EI: } \$ 860.22$$

$$\text{CPP: } \$ 2748.90$$

11. Claudia has a gross revenue of \$500 per week. Calculate her EI and CPP deductions for each pay period.

$$\text{Annual gross income: } 500 \times 52 = \$ 26000 \text{ (less than max)}$$

$$\text{EI: } 26000 \times 0.0162 = \$ 421.20$$

$$\text{CPP: } (26000 - 3500) \times 0.051 = \$ 1147.50$$

12. Calculate EI and CPP for each following gross salary.

i- \$278.08 weekly

$$\text{Annual gross income: } 278.08 \times 52 = \$ 14460.16$$

$$\text{EI: } 14460.16 \times 0.0162 = \$ 234.25$$

$$\text{CPP: } (14460.16 - 3500) \times 0.051 = \$ 558.97$$

ii- \$1071.92 bi-weekly

$$\text{Annual gross income: } \$ 1071.92 \times 26 = \$ 27864.72$$

$$\text{EI: } 27864.72 \times 0.0162 = \$ 451.41$$

$$\text{CPP: } (27864.72 - 3500) \times 0.051 = \$ 1242.60$$

iii- \$2735.33 *semi-monthly*

Annual gross income:  $2735.33 \times 24 = \$65647.92$

EI:  $\$860.22$

CPP:  $\$2748.90$

iv- \$3534.65 monthly

Annual Gross income:  $3534.65 \times 12 = \$42415.80$

EI:  $42415.80 \times 0.0162 = \$687.14$

CPP:  $(42415.80 - 3500) \times 0.051 = \$1984.71$

13. Griffin lives in the Yukon. He earns \$2300 *semi*-monthly. He pays \$13.50 union fees and \$125 for an RRSP each pay period.

- What is his taxable income?

Annual gross income:  $2300 \times 24 = \$55200$

EI:  $\$860.22$

CPP:  $(55200 - 3500) \times 0.051 = \$2636.70$

- How much federal tax does he pay each pay period?

Fed. taxable income:  $48379.08 - 11635 = \$36744.08$

(1<sup>st</sup> bracket only)  $\Rightarrow$

$36744.08 \times 0.15 = \$5511.61$  (year)

$\Rightarrow$   $\$229.65$  / pay period

- How much territorial tax does he pay each pay period?

Terr. taxable income:  $48379.08 - 10207 = \$38172.08$

$\Rightarrow 38172.08 \times 0.064 = \$2443.01$  (year)

$\Rightarrow$   $\$101.79$  / pay period

Taxable income

55200 - 860.22 - 2636.70

- 13.50 x 24 - 125 x 24

- exemptions

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= 48379.08 - exemptions



14. Gabrielle lives in Dawson City and earns \$2015 gross bi-weekly. She pays \$10.40 union fees and \$95 for an RRSP each pay period. Determine her territorial and federal taxes for each pay period.

$$\text{Annual gross income: } 2015 \times 26 = \$52390$$

$$\text{EI: } 52390 \times 0.0162 = \$848.72$$

$$\text{CPP: } (52390 - 3500) \times 0.051 = \$2493.39$$

$$\begin{aligned} \text{Taxable income without exemptions: } & 52390 - 848.72 - 2493.39 \\ & - 10.40 \times 26 - 95 \times 26 \\ & = \$46307.49 \end{aligned}$$

$$\text{Fed. taxable income: } 46307.49 - 11635 = \$34672.49$$

$$\text{Fed taxes: } 34672.49 \times 0.15 = \$5200.87 \Rightarrow \boxed{\$200.03 \text{ per pay period}}$$

$$\text{Terr. taxable income: } 46307.49 - 10207 = \$36100.49$$

$$\text{Terr. taxes: } 36100.49 \times 0.064 = \$2310.43 \Rightarrow \boxed{\$88.86 \text{ per pay period}}$$

15. Lisa is a Yukon employee and has a ~~net~~ monthly gross income of \$2200. She pays \$18.30 union fees and \$230 for an RRSP each pay period. What is her net revenue?

$$\text{Annual gross income: } 2200 \times 24 = \$52800$$

$$\text{EI: } 52800 \times 0.0162 = \$855.36$$

$$\text{CPP: } (52800 - 3500) \times 0.051 = \$2514.30$$

$$\begin{aligned} \text{taxable income without exemptions: } & 52800 - 855.36 - 2514.30 - 18.3 \times 24 \\ & - 230 \times 24 = \$43471.14 \end{aligned}$$

$$\text{Federal: taxable income} = \$31836.14$$

$$\text{taxes: } 31836.14 \times 0.15 = \$4775.42$$

$$\text{Terr: taxable income: } 43471.14 - 10207 = \$33264.14$$

$$\text{taxes: } 33264.14 \times 0.064 = \$2128.90$$

$$\begin{aligned} \text{NET: } & 52800 - 855.36 - 2514.30 - 18.3 \times 24 - 230 \times 24 - 4775.42 \\ & - 2128.90 \\ & = \boxed{\$36566.82} \end{aligned}$$

16. Julie is a Yukon employee and has a monthly gross income of \$6000. She pays \$25 union fees and \$300 for an RRSP each pay period. What is her net revenue?

$$\text{Annual gross income: } 6000 \times 12 = \$72000$$

$$\text{EI: } \$860.22 \text{ (max)}$$

$$\text{CPP: } \$2748.90 \text{ (max)}$$

Taxable income without exemptions:

$$72000 - 860.22 - 2748.90 - 300 \times 12 - 25 \times 12 = \$64490.88$$

$$\text{Federal: taxable income: } 64490.88 - 11635 = \$52855.88$$

$$\begin{aligned} \text{taxes: } & 47630 \times 0.15 + (52855.88 - 47630) \times 0.205 \\ & = 7144.5 + 1071.31 \\ & = \$8215.81 \end{aligned}$$

$$\text{Territorial: taxable income: } 64490.88 - 10207 = \$54283.88$$

$$\begin{aligned} \text{taxes: } & 47630 \times 0.064 + 6653.88 \times 0.09 \\ & = 3048.32 + 598.85 \\ & = \$3647.17 \end{aligned}$$

$$\begin{aligned} \boxed{\text{NET}} \quad & 72000 - 860.22 - 2748.90 - 300 \times 12 - 25 \times 12 \\ & - 8215.81 - 3647.17 \end{aligned}$$

$$= \boxed{\$52627.90}$$