

Name: _____

Date: _____

Canada has a graduated tax system.
 In general, this means that the more money we make, the more tax we pay.

There are federal and provincial income tax removed from your pay cheque after it has been issued to you:

1. Income Tax

Chart 1 – 2019 federal tax rates and income thresholds

Annual taxable income (\$) From – To	Federal tax rate (%) R
0 to 12,069	0
12,069 to 47,630.00	15%
47,630.01 to 95,259.00	20.5%
95,259.01 to 147,667.00	26%
147,667.01 to 210,371.00	29%
210,371.01 and over	33%

Chart 2 – 2019 British Columbia tax rates and income thresholds

Annual taxable income (\$) From – To	Provincial tax rate (%) V
0 to 10,628	0
10,628 to 40,707.00	5.06%
40,707.01 to 81,416.00	7.70%
81,416.01 to 93,476.00	10.50%
93,476.01 to 113,506.00	12.29%
113,506.01 to 153,900.00	14.70%
153,900.01 and over	16.80%

Handwritten notes in pink:
 A bracket on the left side of Chart 2 groups the first three rows.
 Next to the first row: \$ 10 628
 Next to the second row: \$ 30 079
 Next to the third row: \$ 9 293
 To the right of the first row: 0
 To the right of the second row: \$1522
 To the right of the third row: \$715.56

Your entire income is _____ taxed at the marginal tax rate. Each portion of your earnings is taxed at each subsequent tax bracket.

\$50 000

\$ 2 237.56

In this course, you will not need to calculate the income taxes based on the above tables. Income tax will be given as the average tax rate.

$$\text{Income} \times \text{tax rate}$$

2. Canadian Pension Plan

The Canadian pension plan (CPP) provides contributors and their families with partial replacement of earnings in the case of

- when you retire,
- if you're over 60 years old, and
- have made at least 1 CPP contribution

Contribution rate to CPP is 4.95% to a maximum of \$ 2668.

before deductions → $\text{Gross Pay} \times 4.95\%$

3. Employment Insurance

The employment insurance (EI) program provides temporary income support to unemployed workers while they

- laid off (work shortage, seasonal, ...) - available and willing to work
↳ up to 1 year
- maternity (mom only) parent (dad, adoptive parents)
↳ 15 weeks - 35-40 weeks - regular EI
- sick leave
↳ 15 weeks * 61-69 weeks - reduced EI
- caregiver - child (<18) 35 weeks } critical
- adult (<18) 15 weeks }
- end of life 26 weeks }

- Receive up to 55% to a max \$573/week
- except for the extended parental leave (33%)

Premium rate to EI is 1.58% to a maximum of \$ 856.36.

$$\text{Gross Pay} \times 1.58\%$$

Note: deductions are no longer taken off a pay check once a worker has reached the maximum amount of CPP and EI contributions for the year.

Net pay is the amount of money you receive after the deductions are removed.

$$\text{Net Pay} = \text{Gross} - \text{income tax} - \text{CPP} - \text{EI}$$

↳ only government deductions

Employer deduction: extended health, pension plan

Example Keiran has a job that makes \$21 per hour and works 40 hours per week. Assuming she works all year, calculate the following:

52 weeks

- a. Her **gross** annual salary.

$$40 \text{ hrs} \times \$21 / \text{hr} = \$840 / \text{week}$$

$$\$840 / \text{week} \times 52 \text{ weeks} = \$43,680$$

- b. The total **income tax** per year, assuming an income tax rate of 17%.

$$17\% = \frac{17}{100} \\ = 0.17$$

$$\text{Income tax} = 0.17 \times 43,680 \\ = \$7,425.60$$

- c. The total amount of **CPP** and **EI** deductions per year.

$$\begin{array}{l} \text{CPP} = \frac{4.95}{100} \times 43680 \\ (4.95\%) = 0.0495 \end{array} \quad \begin{array}{l} 0.0495 \times 43680 \\ = \$2162.16 \\ (\text{max } \$2668) \end{array} \quad \begin{array}{l} \text{EI} = \frac{1.58}{100} \times 43680 \\ (1.58\%) = 0.0158 \end{array} \quad \begin{array}{l} 0.0158 \times 43680 \\ = \$690.14 \\ (\text{max } \$856.36) \end{array}$$

- d. Her annual **net** income.

$$\begin{array}{r} \text{Net Income} = 43680 - 7425.60 - 2162.16 - 690.14 \\ \text{gross} \quad \text{income tax} \quad \text{CPP} \quad \text{EI} \\ = \$33402.10 \end{array}$$

- e. How much **net** income does she take home **each week**? 52 week

$$\frac{\$33402.10}{52} = \$642.35/\text{week.}$$

Assignment

1. Gabriella works at a pre-school and receives an annual salary of \$40,000. Her standard week is 35 hours per week. She is offered a job at another daycare for \$20 per hour and a standard week of 40 hours per week. If you were Gabriella, would you take the job? Why?

↳ this is personal - you can always choose to work less!

2 options

1. Bring the first income down to hourly
or

2. Bring the second income up to annual.

$$1. \frac{\$40000}{\text{year}} \times \frac{\text{year}}{52 \text{ weeks}} \times \frac{\text{week}}{35 \text{ hrs}} = \$21.98/\text{hr} \leftarrow \text{better wage.}$$

$$2. \frac{\$20}{\text{hr}} \times \frac{40 \text{ hrs}}{\text{week}} \times \frac{52 \text{ weeks}}{\text{year}} = \$41600 \leftarrow \text{more money}$$

2. Brent has been hired as an arborist to trim 300 hedges. He can be paid two ways:

Option 1: \$5.75 per hedge trimmed

Option 2: \$2000 to complete the job in 5 days

a. Which option pays the most?

$$\begin{array}{r}
 1. \quad 300 \\
 \times 5.75 \\
 \hline
 \$ 1725
 \end{array}$$

2. \$2000

option 2 pays better

b. Which method would you recommend that Brent choose? What are the advantages and disadvantages of each?

1. work at his own pace
maybe finishes faster and lines up more work

2. more money
maybe can do more than one job at a time.

3. Amelia has a work schedule as shown below.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Hours worked	8	10	4	0	13	10	0
→ Regular	8	8	4	0	8	8	0
→ Overtime @ 1.5x		2			4	2	
→ Overtime @ 2x					1		

a. Fill out the table to indicate which hours will be paid at her regular pay, at time and a half, and at double time.

b. Calculate her gross salary for this week. if her hourly wage is \$15/hr

$$\begin{aligned}
 & 15 (8+8+4+8+8 + 1.5(2+4+2) + 2(1)) \\
 & = 15 (36 + 1.5(8) + 2(1))
 \end{aligned}$$

$$= 15(50) = \$750$$

4. Jackson is a tour bus driver who gets paid \$19.50 per hour. He works the following hours this week. Some of the days he receives a tip.

	Time Worked	Tips Received
Sunday		
Monday	8 hours	
Tuesday	9 hours	\$75
Wednesday	11 hours	\$50
Thursday		
Friday	9 hours	
Saturday	11 hours	\$105

- a. What is his gross pay for this week?

$$\begin{aligned} & 19.50(8 + 8 + 8 + 8 + 8 + 1.5(1 + 3 + 1 + 3)) + (75 + 50 + 105) \\ &= 19.50(40 + 1.5(8)) + (230) \\ &= 19.50(62) + (230) \\ &= \$1244 \end{aligned}$$

- b. He is paid biweekly. If he works the same hours every week and receives the same amount in tips, what is his gross monthly salary?

$$\$1244 \times 4 = \$4976$$

5. Jessie sells cell phones at a kiosk in the mall. They make \$12.65 per hour and work 37.5 hours per week. They receive a taxable bonus each week of \$50 if they have met the sales goals for the week. Assuming Jessie meets the sales goals every week, calculate the following.

a. Their gross annual salary. yearly

Net Pay
hourly bonus

$$\begin{aligned} & (12.65 \times 37.5 + 50) \times 52 \\ & = (524.38) \times 52 \\ & = \$27\,267.50 \end{aligned}$$

b. Their annual income tax, assuming a tax rate of 14%.

$$27\,267.50 \times \frac{14}{100} = \$3\,817.45$$

c. Their CPP and EI deductions.

$$\text{CPP } 27\,267.50 \times \frac{4.95}{100} = \$1\,349.74$$

$$\text{EI } 27\,267.50 \times \frac{1.58}{100} = \$430.83$$

d. Their net annual salary and their weekly salary.

$$\begin{aligned} \text{Net} &= 27\,267.50 - 3\,817.45 - 1\,349.74 - 430.83 \\ &= \$21\,669.48 \end{aligned}$$

$$\frac{21\,669.48}{52} = \$416.72$$

e. If Jessie only meets the sales goals half of the time, what is their gross salary?

$$\begin{aligned} & (12.65 \times 37.5) \times 52 + (50 \times 26) \\ & = 24\,667.50 + 1\,300 \\ & = \$25\,967.50 \end{aligned}$$

f. Jessie has the option to increase their hourly wage to \$13.75 per hour and have no weekly sales goals (with no weekly bonuses). Should they accept this change or stay with the original payment structure?

$$\begin{aligned} & (13.75 \times 37.5) \times 52 \\ & = \$26\,812.50 \end{aligned}$$

She makes more if she makes the sales goal every week, but not if she only makes it half the time.

6. Jackson works for a construction company and makes \$20 per hour, for 40 hours per week. His boss has a large project and has asked Jackson if he is willing to work 50 hours per week for the whole year. The additional 10 hours per week would be paid at time and a half. Help Jackson make a decision: is it worth it? Calculate the following for both circumstances.

No Overtime	Overtime
a. His gross annual salary.	
$\frac{\$20}{\text{hr}} \times \frac{40 \text{ hrs}}{\text{week}} \times 52 \text{ weeks}$ $= \$41,600$	$20(40 + 1.5(10)) \times 52$ $= \$57,200$
b. His annual income tax, assuming his tax rate is 20% originally but increases to 24% if takes the additional 10 hours per week.	
$41,600 \times \frac{20}{100} = \$8,320$	$57,200 \times \frac{24}{100} = \$13,728$
c. His CPP and EI deductions.	
$41,600 \times \frac{4.95}{100} = \$2,059.20$ $41,600 \times \frac{1.58}{100} = \657.28	$57,200 \times \frac{4.95}{100} = \cancel{2,831.40} = \$2,668$ $57,200 \times \frac{1.58}{100} = \cancel{903.76} = \856.36
d. His net annual salary and weekly salary.	
$\begin{array}{r} 41,600 - 8,320 \\ - 2,059.20 \\ - 657.28 = \\ \hline \$30,563.52 \end{array}$	$\begin{array}{r} 57,200 - 13,728 \\ - 2,668 \\ - 856.36 = \\ \hline \$39,949.64 \end{array}$

too much

too much

Is the extra net pay worth working the extra 10 hours per week?

Monetarily yes, if he's ok with working 10 hr days. (this is only one consideration)