

## **\* Foundations of Mathematics and Pre-Calculus 10 Formula Sheet**

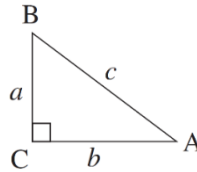
### **Trigonometry (Right Triangles)**

Remember to check that your calculator is in DEGREE mode

$$\boxed{S \frac{O}{H} C \frac{A}{H} T \frac{O}{A}}$$

$$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}} \quad \cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}} \quad \tan \theta = \frac{\text{opposite}}{\text{adjacent}}$$

Pythagorean Theorem:  $a^2 + b^2 = c^2$



### **Linear Relations**

The Slope of a Line:

$$\bullet \text{ slope} = m = \frac{\text{rise}}{\text{run}} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$

The Equation of a Line:

- Slope-Intercept Form:  $y = mx + b$
- Standard Form:  $Ax + By = C$
- Point-Slope Form:  $y - y_1 = m(x - x_1)$

**TURN OVER**

## **Finance**

**CPP** : Gross Pay under \$55 300,     $CPP = (\text{gross pay} - \$3500) \times 0.0495$

Gross Pay \$55 300 and over,  $CPP = \$2564.10$

**EI**: Gross Pay under \$51 300,     $EI = \text{gross pay} \times 0.0163$

Gross Pay \$51 300 and over,     $EI = \$836.19$

**Federal** Basic Amount and Employment Credit:                      \$12 813

**BC Provincial** Basic Personal Amount:                                      \$10 207

**Federal Taxes**    =  $(\text{Gross pay} \times \text{tax rate}) - (\text{tax credits} \times 0.15)$

**Provincial Taxes** =  $(\text{Gross pay} \times \text{tax rate}) - (\text{tax credits} \times 0.0506)$

Federal Tax			BC Provincial Tax		
2017 Taxable Income	2017 Tax Rates	Maximum amounts	2017 Taxable Income	2017 Tax Rates	Maximum amounts
\$0 - \$45 916	15.0%	\$6887.4	\$0 - \$38 898	5.06%	\$1968.24
Over \$45 916 - \$91 831	20.5%	\$9412.58	Over \$38 898 - \$77 797	7.70%	\$2995.22
Over \$91 831 - \$142 353	26.0%	\$13 135.72	Over \$77 797 - \$89 320	10.50%	\$1209.92
Over \$142 353 - \$202 800	29.0%	\$17 529.63	Over \$89 320 - \$108 460	12.29%	\$2352.31
Over \$202 800	33.0%	No Max	Over \$108 460	14.70%	No Max