

Nova Scotia Examination

Mathematics 10

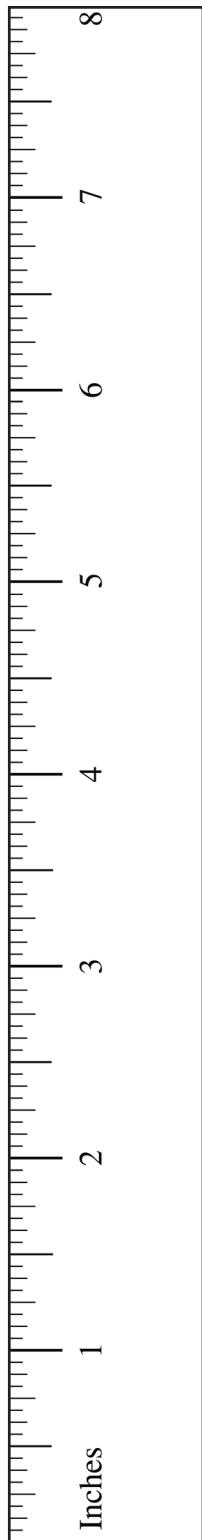
Formula Booklet

MEASUREMENT			
	Common Imperial	Imperial and SI	SI
Length	1 mile = 1760 yards 1 yard = 3 feet 1 foot = 12 inches	1 mile = 1.609 km 1 yard = 0.9144 m 1 foot = 30.48 cm 1 inch = 2.54 cm	1 km = 1000 m 1 m = 100 cm 1 cm = 10 mm
Common Abbreviations	mile ↔ mi. yard ↔ yd. feet ↔ ' or ft. inch ↔ " or in. ton ↔ tn. pound ↔ lb. ounce ↔ oz.		kilometre ↔ km metre ↔ m centimetre ↔ cm millimetre ↔ mm

TRIGONOMETRY
Reminder: Put your calculator in degree mode.
$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}}$ $\cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$ $\tan \theta = \frac{\text{opposite}}{\text{adjacent}}$

Pythagorean Theorem

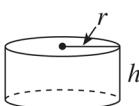
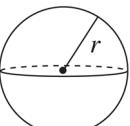
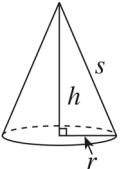
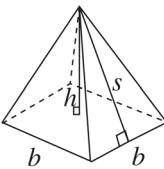
$$a^2 + b^2 = c^2$$



MATH TILES LEGEND		LINEAR FUNCTIONS	
+ x^2	- x^2	Linear equations $y = mx + b$ $Ax + By + C = 0$ $y - y_1 = m(x - x_1)$	The slope of a line $m = \frac{y_2 - y_1}{x_2 - x_1}$

GEOMETRIC FIGURE	PERIMETER	AREA
Rectangle 	$P = 2l + 2w$	$A = lw$
Triangle 	$P = a + b + c$	$A = \frac{bh}{2}$
Circle 	$C = 2\pi r$	$A = \pi r^2$

NOTE: Use the value of π programmed in your calculator rather than the approximation of 3.14.

GEOMETRIC SOLID	SURFACE AREA	VOLUME
Cylinder 	$SA = 2\pi r^2 + 2\pi rh$	$V = (\text{area of base}) \times h$
Sphere 	$SA = 4\pi r^2$	$V = \frac{4}{3}\pi r^3$
Cone 	$SA = \pi r^2 + \pi rs$	$V = \frac{1}{3} \times (\text{area of base}) \times h$
Right Square-Based Pyramid 	$SA = 2bs + b^2$	$V = \frac{1}{3} \times (\text{area of base}) \times h$
General Right Prism	$SA = \text{the sum of the area of all the faces}$	$V = (\text{area of base}) \times h$
General Right Pyramid	$SA = \text{the sum of the area of all the faces}$	$V = \frac{1}{3} \times (\text{area of base}) \times h$

NOTE: Use the value of π programmed in your calculator rather than the approximation of 3.14.



