




Grade 10 Numeracy Assessment

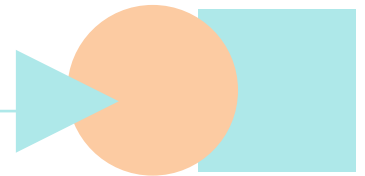
Reference Pages



BRITISH
COLUMBIA

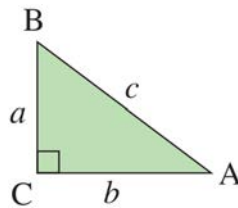
Ministry of
Education





Pythagorean Theorem

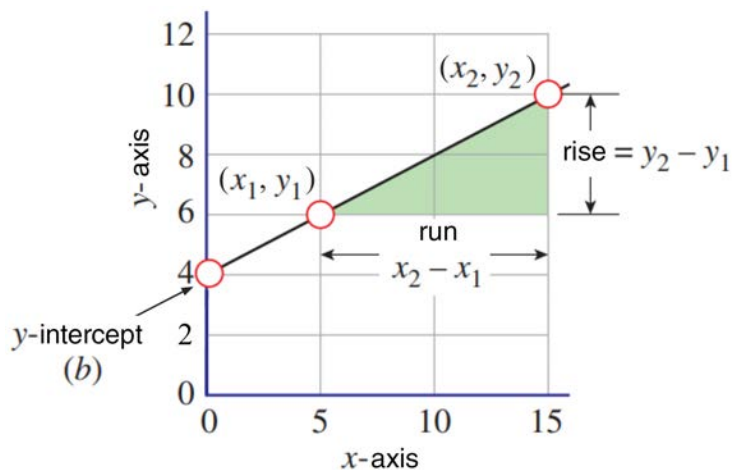
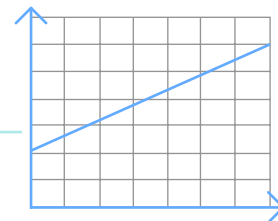
$$c^2 = a^2 + b^2$$



Geometric Figure	Perimeter	Area	KEY LEGEND <i>l</i> = length <i>w</i> = width <i>b</i> = base <i>h</i> = height <i>s</i> = slant height <i>r</i> = radius <i>d</i> = diameter <i>P</i> = perimeter <i>C</i> = circumference <i>A</i> = area <i>SA</i> = surface area <i>V</i> = volume
Rectangle 	$P = 2l + 2w$ or $P = 2(l + w)$	$A = lw$	
Triangle 	$P = a + b + c$	$A = \frac{bh}{2}$	
Circle 	$C = \pi d$ or $C = 2\pi r$	$A = \pi r^2$	

Geometric Solid	Surface Area	Volume
General Prism	$SA =$ the sum of areas of all the faces	$V = (\text{area of base}) \times h$
Cylinder 	$SA = 2\pi r^2 + 2\pi rh$	$V = \pi r^2 h$
Rectangular Prism 	$SA = wh + wh + lw$ $\quad + lw + lh + lh$ or $SA = 2(wh + lw + lh)$	$V = lwh$

RATES OF CHANGE



Equation of a line:

$$y = mx + b$$

$$y - y_1 = m(x - x_1)$$

Rate of change (slope) of a line:

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

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$



Unit prefixes

Symbol	Prefix	Quantity
G	giga	1 000 000 000
M	mega	1 000 000
k	kilo	1 000
h	hecto	100
d	deci	0.1
c	centi	0.01
m	milli	0.001
μ	micro	0.000 001

Units

Symbol	Unit	Dimension
g	gram	mass
m	metre	length
m ²	square metre	area
m ³	cubic metre	volume
L	litre	volume
W	watt	power

Conversions

Mass

$$1 \text{ t} = 1000 \text{ kg}$$

Area

$$1 \text{ ha} = 10\,000 \text{ m}^2$$

Volume

$$1 \text{ cm}^3 = 1 \text{ mL}$$

$$1 \text{ m}^3 = 1000 \text{ L}$$

Imperial Unit Conversions

Mass

$$1 \text{ pound} \approx 0.454 \text{ kg}$$

Area

$$1 \text{ acre} \approx 0.4047 \text{ ha}$$

Length

$$1 \text{ inch} = 2.54 \text{ cm}$$

Formulas

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$



12-Month Calendar

JANUARY							FEBRUARY							MARCH							APRIL						
SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA
	1	2	3	4	5	6					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10	8	9	10	11	12	13	14
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17	15	16	17	18	19	20	21
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24	22	23	24	25	26	27	28
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31	29	30					

MAY							JUNE							JULY							AUGUST						
SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA
		1	2	3	4	5						1	2	1	2	3	4	5	6	7				1	2	3	4
6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11
13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18
20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25
27	28	29	30	31			24	25	26	27	28	29	30	29	30	31					26	27	28	29	30	31	

SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER						
SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA
						1		1	2	3	4	5	6					1	2	3							1
2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8
9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15
16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22
23	24	25	26	27	28	29	28	29	30	31				25	26	27	28	29	30		23	24	25	26	27	28	29
30														30	31						30	31					

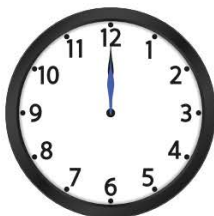
24-Hour Clock



Time

1 year \approx 365 days
 1 year \approx 52 weeks
 1 day = 24 h
 1 h = 60 min
 1 min = 60 s

Time Zones



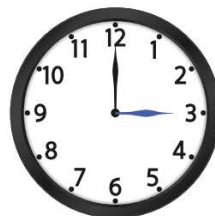
Pacific Time (PT)



Mountain Time (MT)



Central Time (CT)



Eastern Time (ET)



Atlantic Time (AT)