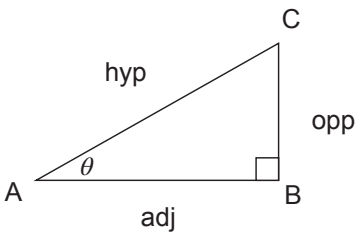
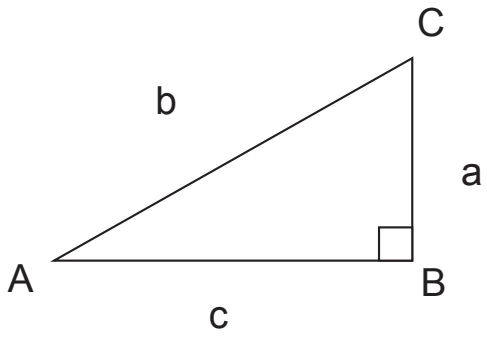
MFM2P Formula and Conversions Sheet

Measurement Conversions

Unit	Metric Equivalent	Imperial Equivalent
in	2.54 cm	
ft	30.48 cm or 0.3048 m	12 in
yd	0.9144 m	3 ft or 36 in
mi	1.61 km	5280 ft or 1760 yd
oz	28.4 ml	
tsp	5 ml	
tbsp	15 ml	3 tsp
cup	250 ml	8 oz
pt	568 ml	20 oz
qt	1136 ml or 1.136 l	40 oz or 2 pt
gal	4.54 l or 4540 ml	4 qt or 8 pt

Unit	Imperial Equivalent
mm	0.039 in
cm	0.39 in
m	39.36 in, 3.28 ft or 1.0936 yd
km	0.62 mi
ml	0.0352 oz
l	35.2 oz or 0.88 qt or 0.22 gal

<table>
<tr><th colspan="4">Trigonometry Formulas</th></tr>
<tr><td>$\sin\theta = \frac{opp}{hyp}$</td><td>$\cos\theta = \frac{adj}{hyp}$</td><td>$\tan\theta = \frac{opp}{adj}$</td><td rowspan="2"> 
</td></tr>
<tr><td>$\theta = \sin^{-1}\left(\frac{opp}{hyp}\right)$</td><td>$\theta = \cos^{-1}\left(\frac{adj}{hyp}\right)$</td><td>$\theta = \tan^{-1}\left(\frac{opp}{adj}\right)$</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="3">$a^2 + b^2 = c^2$
 
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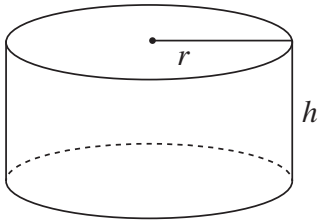
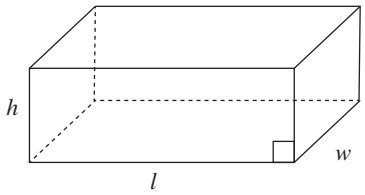
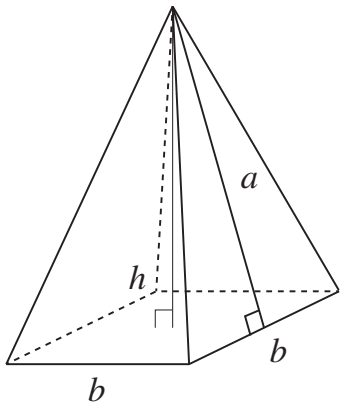
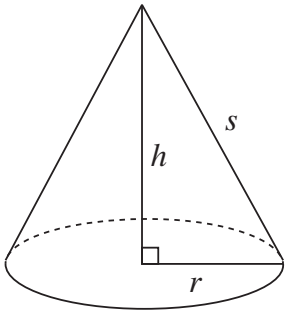
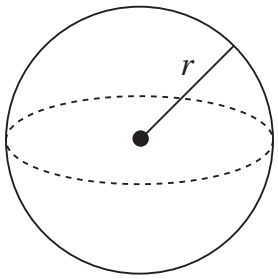
Volume and Surface Area Formulas of 3D Shapes		
Volume Formula	Surface Area Formula	Diagram
$V = pr^2h$	$S = 2prh + 2pr^2$	Cylinder 
$V = lwh$	$S = 2wl + 2wh + 2lh$	Rectangular prism 

$V = \frac{b^2 h}{3}$	$S = b^2 + 2ab$	Square-based pyramid 
$V = \frac{\pi r^2 h}{3}$		Cone 
$V = \frac{4\pi r^3}{3}$		Sphere 

Linear Relations Formulas		
$Ax + By + C = 0$	$y = mx + b$	$y = b$ and $x = a$
$m = \frac{y_2 - y_1}{x_2 - x_1}$	$m = \frac{rise}{run}$	$m = \frac{\Delta y}{\Delta x}$

Quadratic Relations Formulas		
$y = ax^2 + bx + c$	$y = (x - s)(x - r)$	$x = \frac{r + s}{2}$