## Formula Sheet:

## Math Grade 9 Placement Test to enter Math 180

| Pythagorean Theorem | $\mathrm{c}^{2}=\mathrm{a}^{2}+\mathrm{b}^{2}$ |
| :---: | :---: |
| Triangle | $\mathrm{A}=\frac{1}{2} \mathrm{bh}$ |
| Square | $\mathrm{A}=\mathrm{s}^{2}$ |
| Rectangle | A = lw |
| Parallelogram | $\mathrm{A}=\mathrm{bh}$ |
| Circle | $\begin{aligned} & \mathrm{C}=2 \pi \mathrm{r} \\ & \mathrm{~A}=\pi \mathrm{r}^{2} \\ & \hline \end{aligned}$ |
| Rectangular solid | $\begin{aligned} & \mathrm{V}=1 \mathrm{wh} \\ & \mathrm{~A}=21 \mathrm{w}+2 \mathrm{lh}+2 \mathrm{wh} \end{aligned}$ |
| Right circular cylinder | $\begin{aligned} & \mathrm{V}=\pi \mathrm{r}^{2} \mathrm{~h} \\ & \mathrm{~A}=2 \pi \mathrm{r}^{2}+2 \pi \mathrm{r} \mathrm{~h} \end{aligned}$ |
| Right prism | $\mathrm{V}=\mathrm{Bh}(\mathrm{B}=$ area of the base $)$ |
| Right circular cone | $\begin{aligned} & \mathrm{V}=\frac{1}{3} \pi \mathrm{r}^{2} \mathrm{~h} \\ & \mathrm{~A}=\pi \mathrm{r}^{2}+\pi \mathrm{rs}(\mathrm{~s}=\text { slant height }) \end{aligned}$ |
| Sphere | $\begin{aligned} & \mathrm{V}=\frac{4}{3} \pi \mathrm{r}^{3} \\ & \mathrm{~A}=4 \pi \mathrm{r}^{2} \end{aligned}$ |

