

## MA 223 FORMULA SHEET

### Volume & Surface Area

Right Circular Cylinder

$$V = \pi r^2 h$$
$$SA = \begin{cases} 2\pi r^2 + 2\pi r h \\ \pi r^2 + 2\pi r h \end{cases}$$

Sphere

$$V = \frac{4}{3}\pi r^3$$
$$SA = 4\pi r^2$$

### Interest Formulas

$$A = P\left(1 + \frac{r}{m}\right)^{mt}$$
$$A = Pe^{rt}$$

### Exponential Growth & Decay

$$Q(t) = Q_0 e^{kt}$$
$$Q(t) = Q_0 e^{-kt}$$