**4.2 Analyzing Exponential Functions (continued)**

**Exponential Functions –**

$y=ab^{x}$ **where *a* > 0**

$y=2^{x}$ $y=\frac{1}{2}\left(2\right)^{x}$

 $y=2\left(2\right)^{x}$ $y=3\left(\frac{1}{2}\right)^{x}$



Domain – Range –

*x*-intercept – *y* – intercept –

asymptote – end behaviour –

$y=ab^{x}$ **where *a* < 0**

$y=-2^{x}$ $y=-\frac{1}{2}\left(2\right)^{x}$

 $y=-2\left(2\right)^{x}$ $y=-3\left(\frac{1}{2}\right)^{x}$



Domain – Range –

*x*-intercept – *y* – intercept –

asymptote – end behaviour –