## Logarithmic Functions

While working in a group make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.

1. Find the value $t$ in the following by writing logarithmic equations as exponential equations:
(a) $\log (t)=5.5$
(b) $\log _{7}(\sqrt[3]{7})=t$
(c) $\log _{t}(4)=2$
(d) $2=e^{0.04 t}$
2. Graph:
(a) $f(x)=3^{x}$.
(b) $g(x)=\log _{3}(x)$
(c) $h(x)=2 \log _{3}(x)-1$

3. Given that $g(x)$ is an logarithmic function of the form $y=\log _{b}(x)$ that has been vertically shifted and is graphed below. Find the equation.

