

4.7] Another Video on Exponential Applications

$$f(x) = a b^{\frac{x}{t}}$$

Growth $\Rightarrow b = 1 + r$

Decay $\Rightarrow b = 1 - r$

Doubles $\Rightarrow b = 2$

Doubles every 12 hours.

$$f(x) = 5(2^{\frac{x}{12}})$$

in 12 hours, we will have 10.

$$\begin{aligned} f(12) &= 5(2^{12/12}) \\ &= 5(2) = 10 \end{aligned}$$