Find Exp. Model through two Points

(1, 10) (2, 25)

1) Substitute given x & y into $y = a \cdot b^x$

$10 = a \cdot b^1$ $25 = a \cdot b^2$

2) Use Substitution to solve for a & b

- solve 1 eqn for a

$\frac{10}{b^1} = \frac{a \cdot b^1}{b^1}$ $a = \frac{10}{b}$

- substitute into the other equation

$25 = \left(\frac{10}{b^1}\right) b^2 \Rightarrow 25 = 10 \cdot b$

$\Rightarrow b = 2.5$

- substitute into

$a = \frac{10}{2.5} = 4$

3) Write the equation

$y = 4(2.5)^x$