

Properties of exponents: Simplify the following

1. $\left(\frac{b^2}{2a^3}\right)^{-2}$

2. $(-4x^2)^2(2x)$

3. $\frac{x^2y^3z^{-2}}{x^3y^2z}$

Exponential Functions

1. Write a function that doubles, starting at 4.
2. Write a function that doubles, starting at 2.
3. Write a function that triples and starts at 2 then has a vertical shift up 3 units
4. Write a function that starts at 4 and has a growth rate of $\frac{1}{2}$.