

Name: _____

Date: _____

$f(x) = a \cdot b^x$. $f(0) = a$ - the y-intercept/starting value. Last two are challenge problems!

1. $f(x) = 4(3)^x$. Find $f(0)$.

show your work

2. $f(x) = 4(3)^x$. Find $f(2)$.

show your work

3. $v(t) = 500(1.08)^t$: what was the original price? (Trainer echo - Jan 2026 Q8!)

show your work

4. $f(x) = 2(5)^x$. Find $f(3)$.

show your work

5. Make a table for $f(x) = 3(2)^x$ with $x = -1, 0, 1, 2$. (Trainer echo - graphing!)

show your work

6. What is the y-intercept of $y = 7(0.5)^x$?

show your work

7. Does $f(x) = 6(1.5)^x$ ever reach 0?

show your work

8. Compare $f(2)$ for $f(x) = 10(2)^x$ vs $g(x) = 2(10)^x$.

show your work

- 9.** An exponential passes through (0, 6) and (1, 18). Find a and b, write the function. ★ CHALLENGE

show your work

- 10.** $f(x) = a \cdot b^x$ has $f(1) = 12$ and $f(3) = 48$. Find b, then a. ★ CHALLENGE

show your work