

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

Anything⁰ = 1

Answer: 4

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

4×9

Answer: 36

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

$v(0) = 500 \times 1$

Answer: \$500

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

2×125

Answer: 250

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

1.5, 3, 6, 12

Answer: (-1,1.5),(0,3),(1,6),(2,12)

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

$x = 0$ gives 7

Answer: (0, 7)

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

Multiplying by 1.5 never hits 0

Answer: No - approaches but never 0

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

$10 \times 4 = 40$; $2 \times 100 = 200$

Answer: $g(2) = 200$ is bigger

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

$a = f(0) = 6$

$18 = 6b$, $b = 3$

Answer: $f(x) = 6(3)^x$

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

$48/12 = b^2 = 4$, $b = 2$

$12 = a(2)$, $a = 6$

Answer: $f(x) = 6(2)^x$