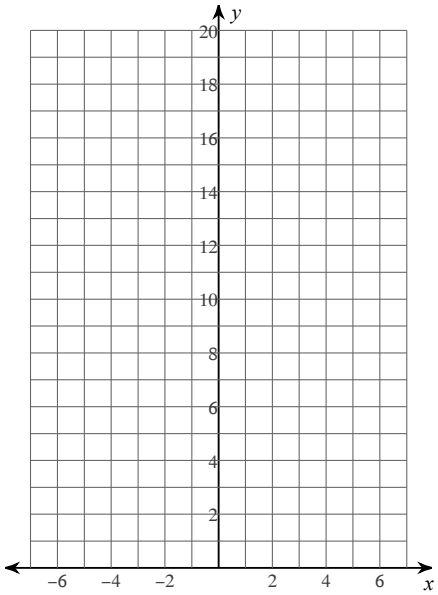
PreAP Algebra 2 y = ab^(x-h) + k Name_____

Graphing Exponential Functions w/Transformations

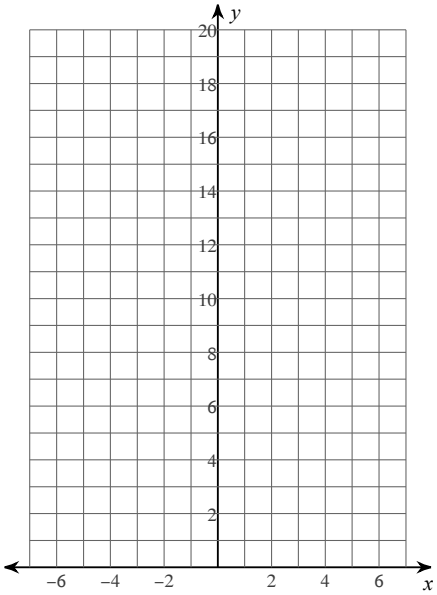
Date_____ Class____

State whether it is growth or decay. Identify (0, A) and (1, AB). Sketch the graph of each function using transformations.

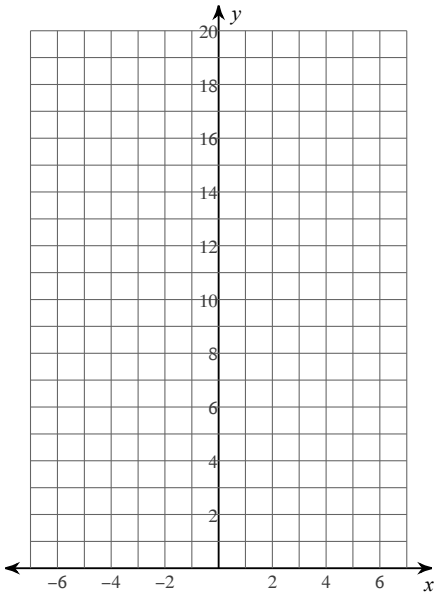
1) $y = 4 \cdot \left(\frac{1}{2}\right)^x$



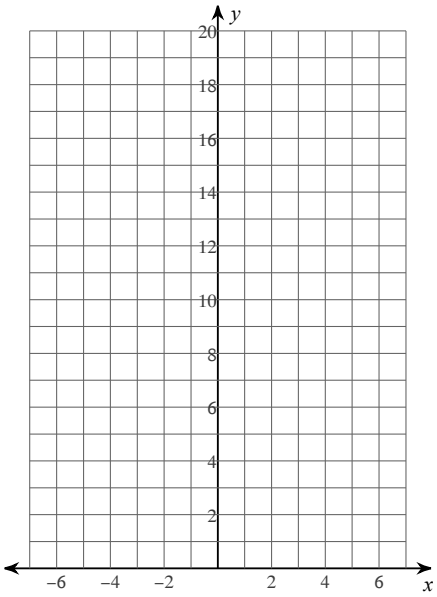
2) $y = 5 \cdot 2^x$



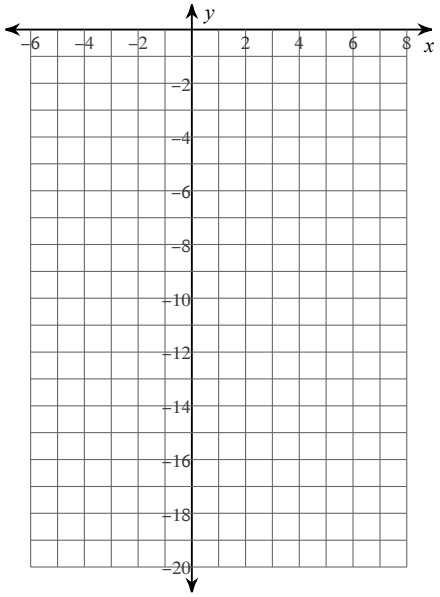
3) $y = \frac{1}{4} \cdot 2^x$



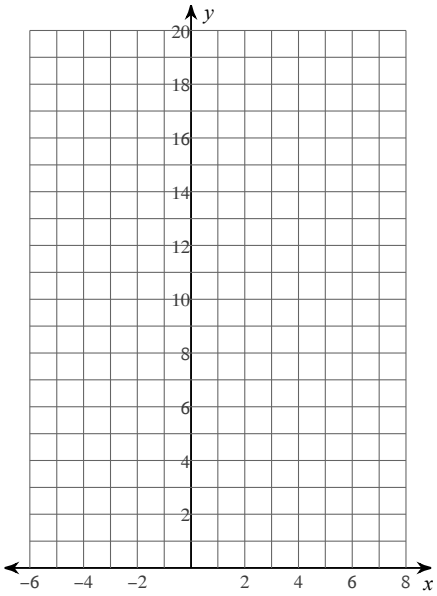
4) $y = \frac{1}{2} \cdot \left(\frac{1}{3}\right)^x$



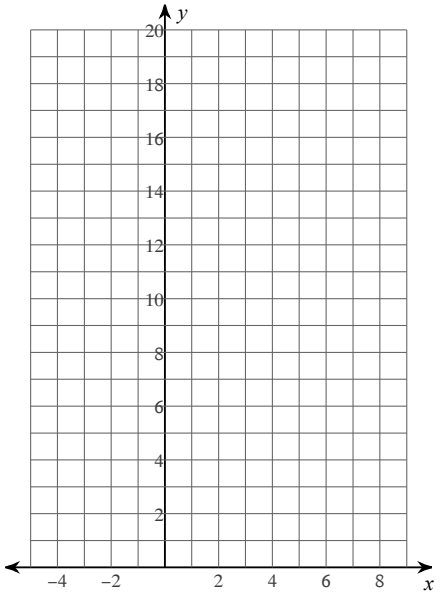
5) $y = -\frac{1}{4} \cdot 2^{x-1}$



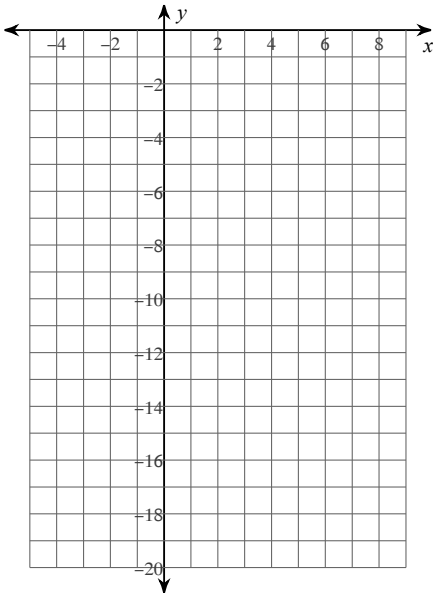
6) $y = 4 \cdot 2^{x-1}$



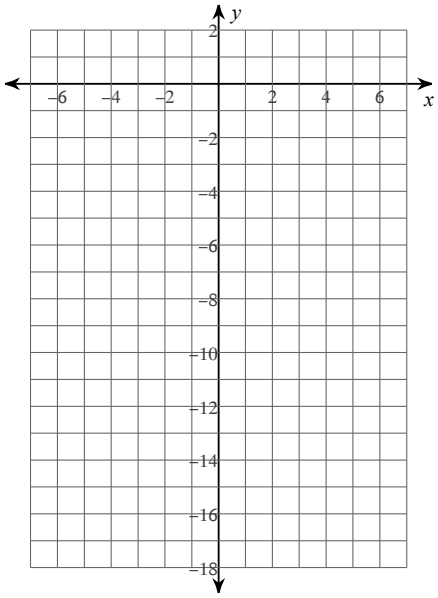
7) $y = 5 \cdot 2^{x-2}$



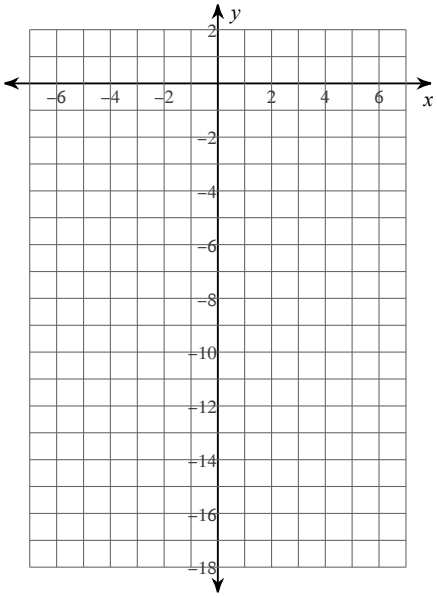
8) $y = -3 \cdot \left(\frac{1}{2}\right)^{x-2}$



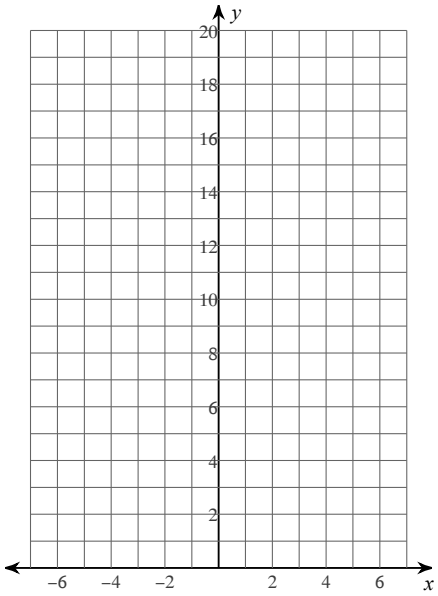
9) $y = -4 \cdot 2^x + 2$



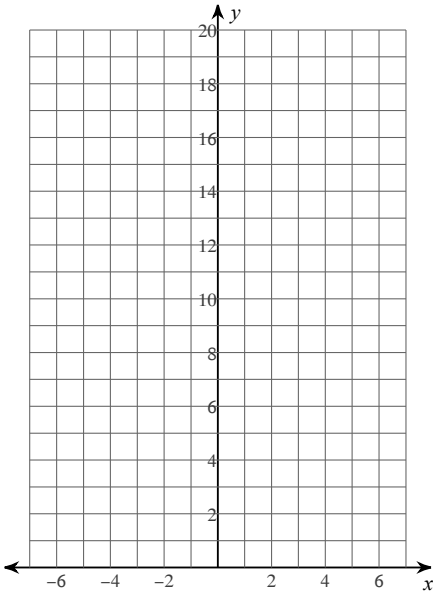
10) $y = -\frac{1}{3} \cdot \left(\frac{1}{2}\right)^x + 2$



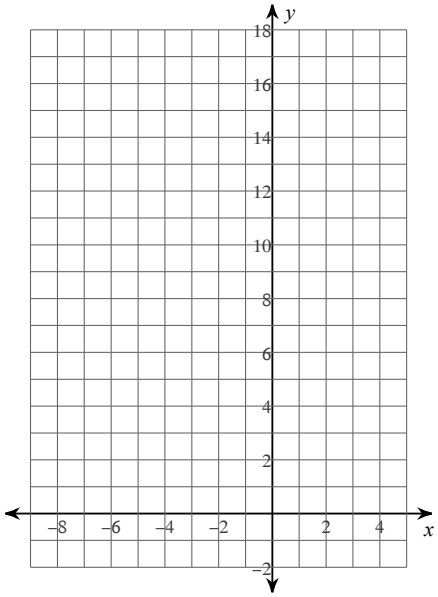
11) $y = \frac{1}{2} \cdot 4^x + 2$



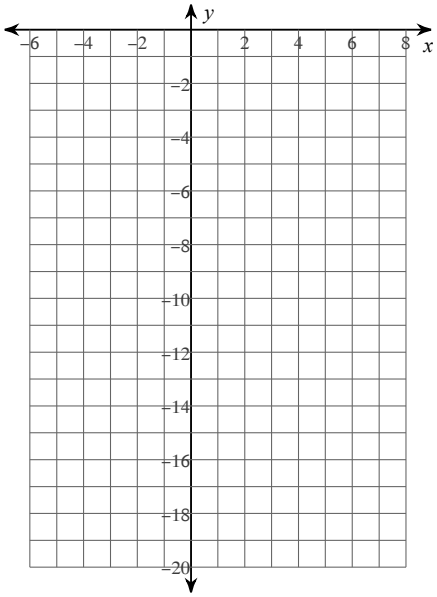
12) $y = 5 \cdot 2^x + 2$



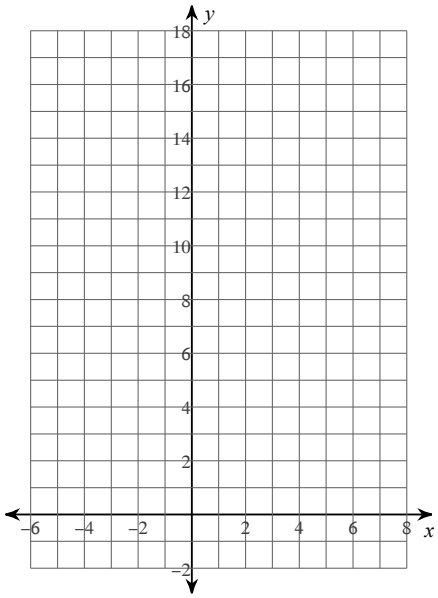
13) $y = 5 \cdot \left(\frac{1}{2}\right)^{x+2} - 2$



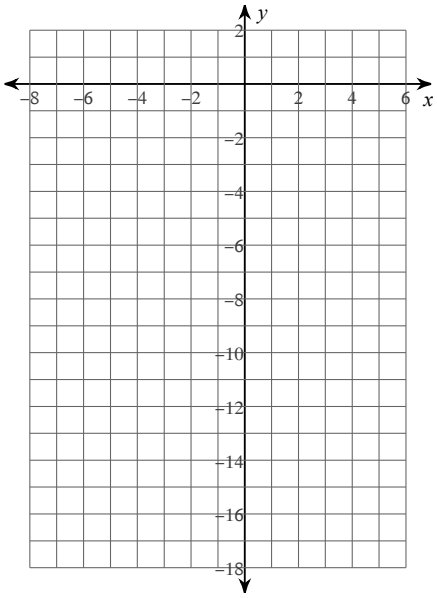
14) $y = -4 \cdot \left(\frac{1}{2}\right)^{x-1} - 2$



15) $y = 5 \cdot 2^{x-1} - 2$

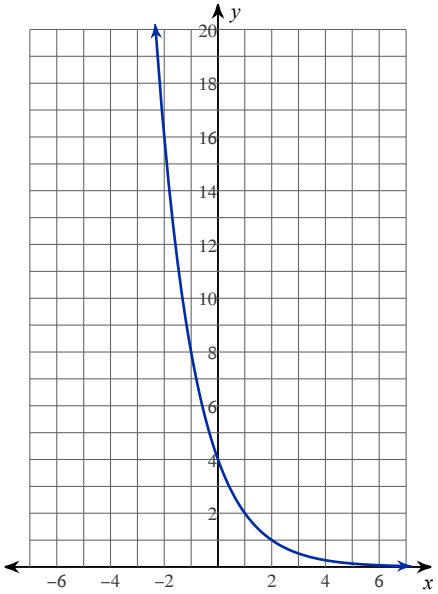


16) $y = -2 \cdot \left(\frac{1}{2}\right)^{x+1} + 2$



Write an equation for each graph. (Decide whether growth or decay. Identify the y-intercept. Identify the next point "up" the graph. Figure out "b".)

17)



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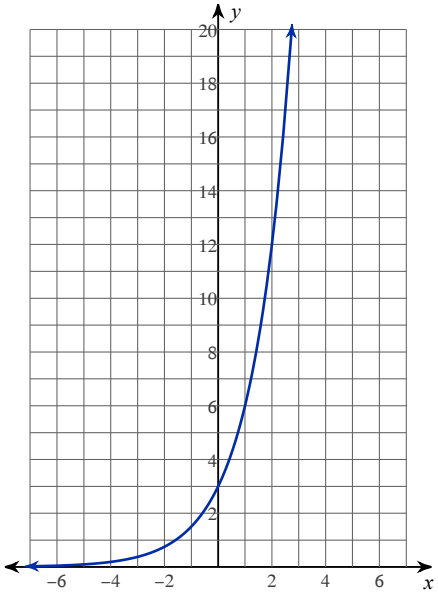

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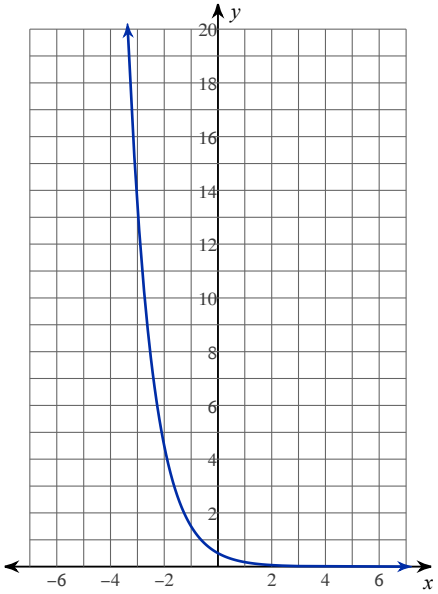

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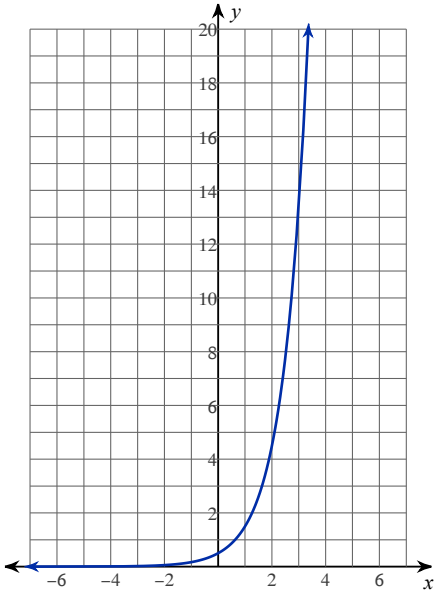

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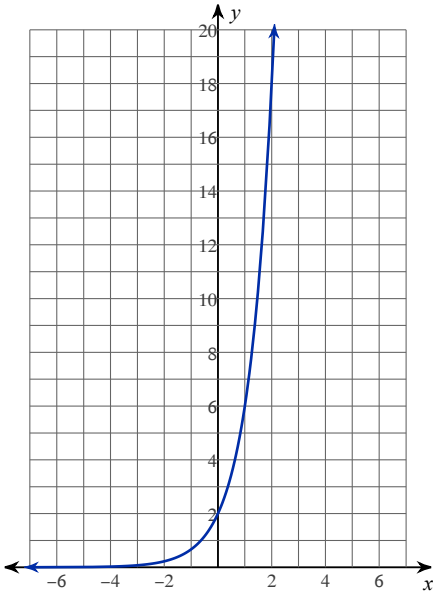
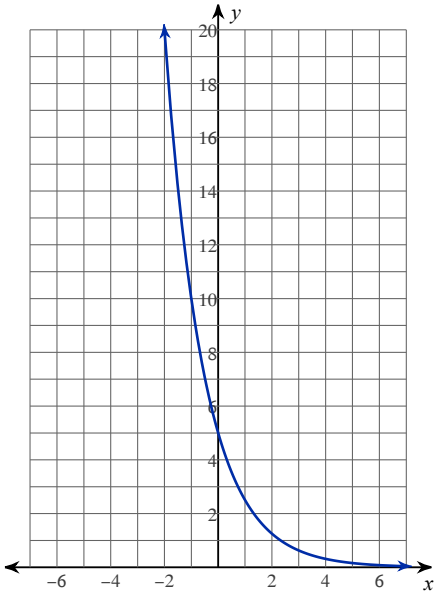
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