Precalculus

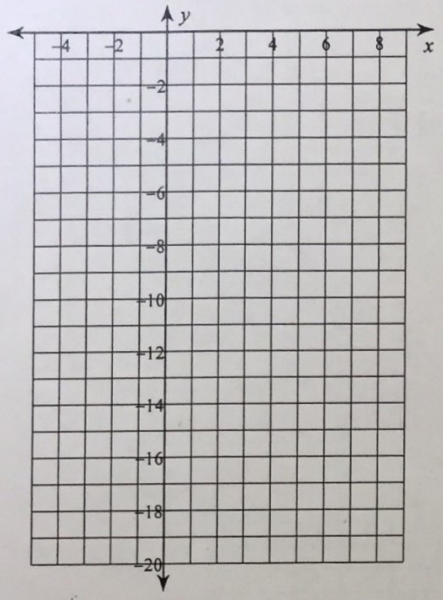
Name_____

Graphing Exponentials & Logs

Date_____

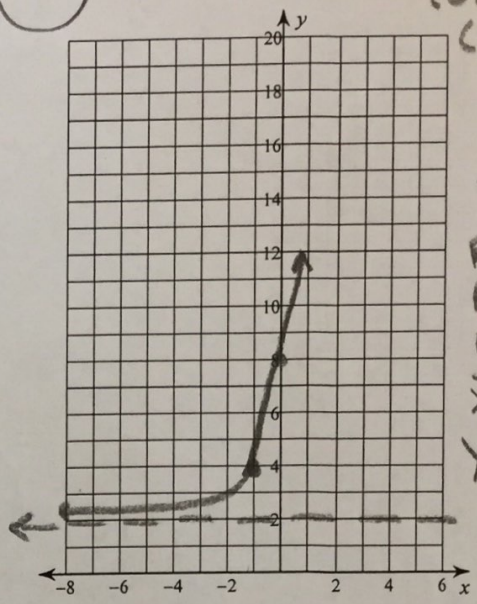
Sketch the graph of each function.

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



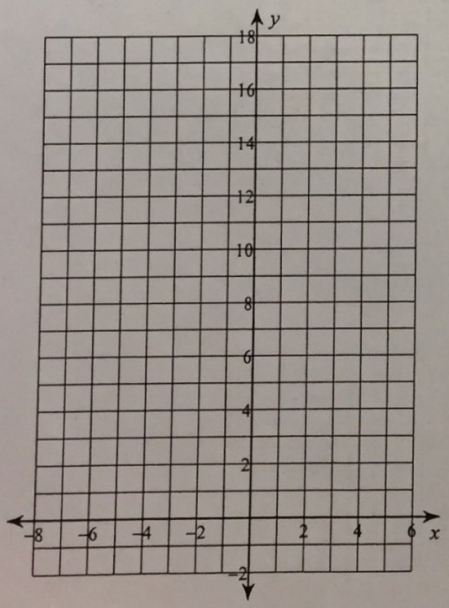
2) $y = 2 \cdot 3^{x+1} + 2$

(0,1)
(0,2)
(-1,4)



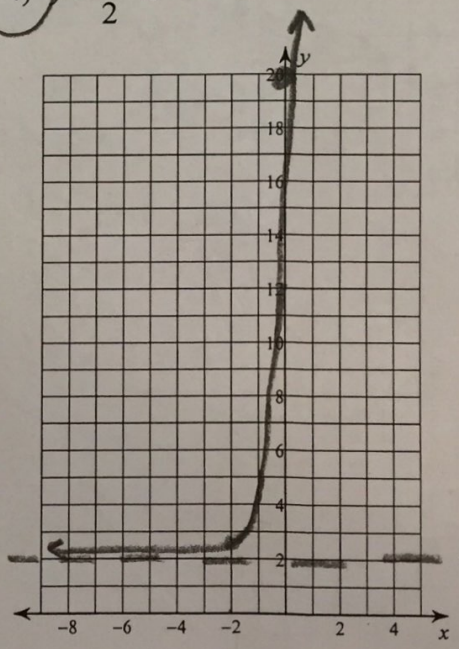
Every
HA $y=2$
D $(-\infty,\infty)$
R $(2,\infty)$
y-int $(0,8)$
x-int none
$y^{-1}: \log_3\left(\frac{x-2}{2}\right) - 1 =$
Inc $(-\infty,\infty)$

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



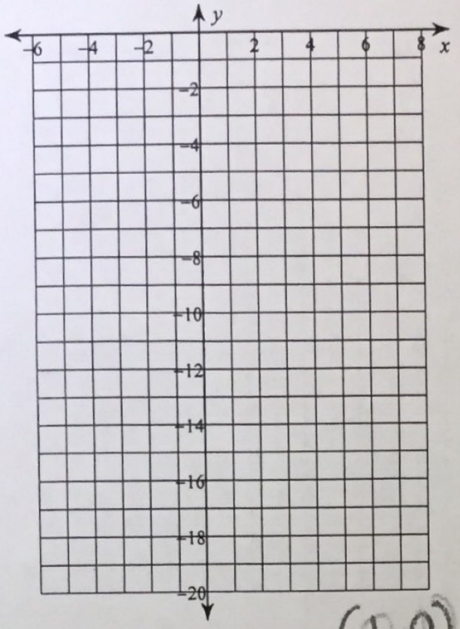
4) $y = \frac{1}{2} \cdot 6^{x+2} + 2$

Sketch



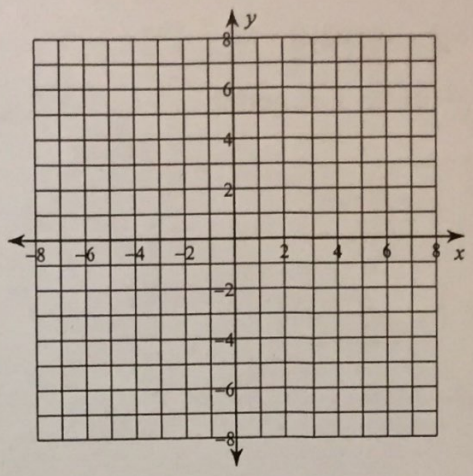
HA $y=2$
(0,1)
$(0, \frac{1}{2})$
(-2, 2.5)
y-int (0,20)
Inc $(-\infty,\infty)$

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

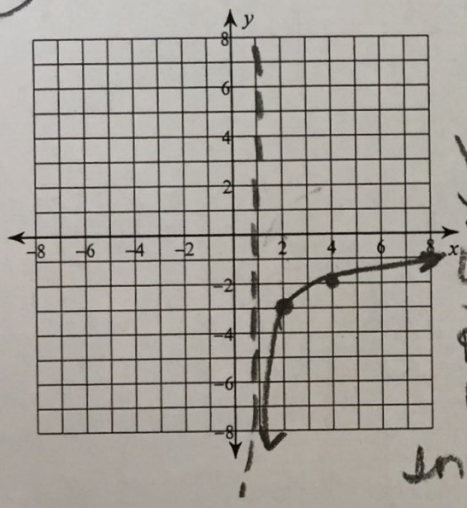


(1,0)

6) $y = \log_6 (x+1) + 1$



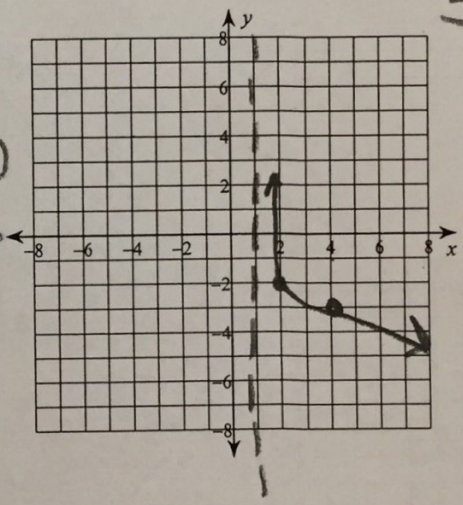
7) $y = \log_3 (x-1) - 3$ (2,-3)



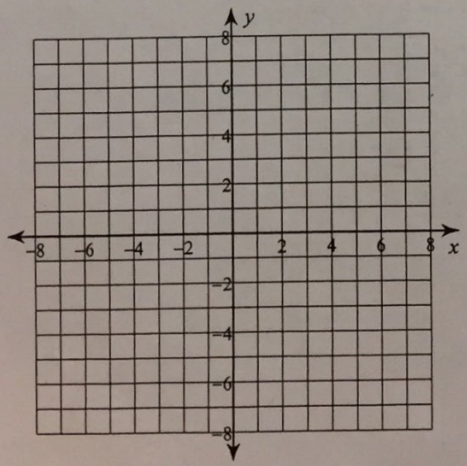
Every thing
VA: x=1
x int (28,0)
y-int none
D (1,∞)
R (-∞,-∞)
Inc (1,∞)

8) $y = \log_{\frac{1}{3}} (x-1) - 2$

Sketch
VA x=1



9) $y = \log_2 (x-1) + 2$



10) $y = \log_3 (x+6) + 3$