MATH 5 SN Name_____

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EXPONENTIAL FUNCTIONS MULTIPLE CHOICE

Solve each equation.

1) $4 \cdot 32^{3v+1} = \frac{1}{4}$

A) No solution. B) $\{-9\}$

C) $\left\{-\frac{3}{5}\right\}$ D) $\left\{\frac{7}{9}\right\}$

2) $\left(\frac{1}{64}\right)^{-r+1} \cdot \frac{1}{4} = 4^2$

A) $\left\{\frac{1}{9}\right\}$ B) $\left\{\frac{1}{2}\right\}$

C) $\{2\}$ D) $\{-9\}$

3) $625^{-x-2} \cdot \left(\frac{1}{125}\right)^{-x+3} = \frac{1}{625}$

A) $\{-5\}$ B) $\left\{-\frac{1}{6}\right\}$

C) $\{-13\}$ D) $\left\{\frac{4}{5}\right\}$

4) $64^{-n} \cdot 64^{-n} = 16^{1-3n}$

A) No solution. B) $\left\{\frac{4}{3}\right\}$

C) $\{-2\}$ D) $\left\{-\frac{9}{5}\right\}$

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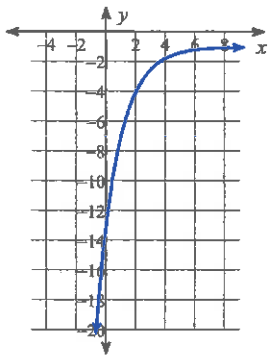
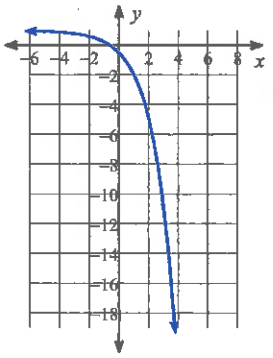
Sketch the graph of each function.

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

A)



B)



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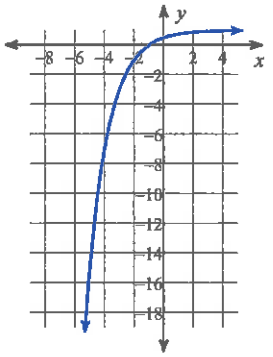

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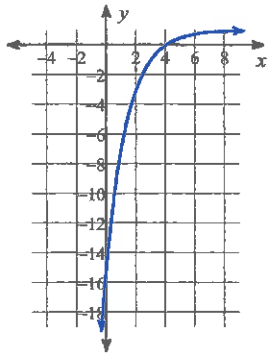
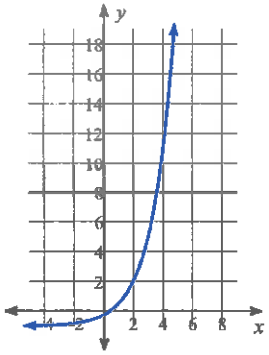
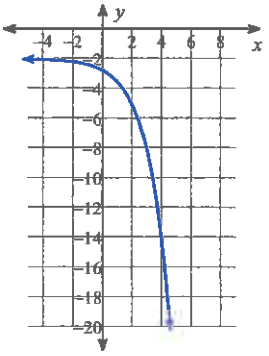


6) $f(x) = -3 \cdot 2^{x-2} - 1$

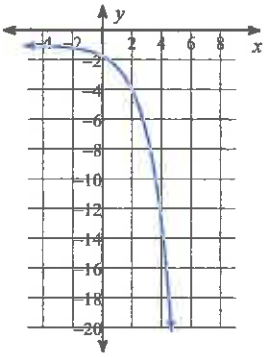
A)



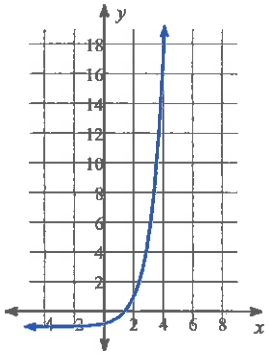
B)



C)



D)



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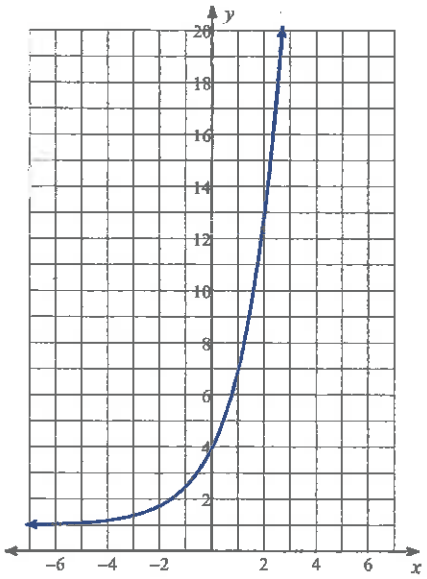
Write an equation for each graph.

7)



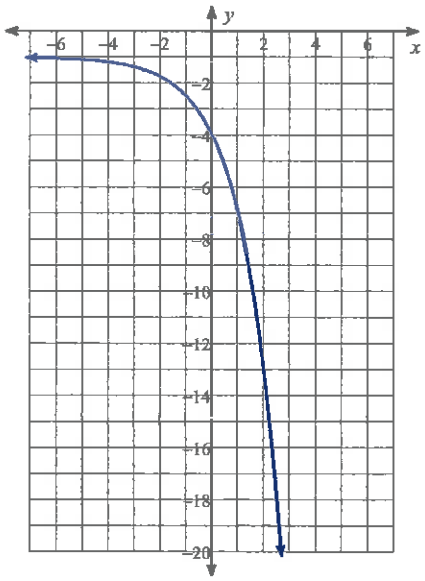
A) $f(x) = \frac{1}{2} \cdot \left(\frac{1}{4}\right)^{x+1}$

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

C) $f(x) = 3 \cdot 2^{x} + 1$

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

8)



A) $f(x) = -\frac{1}{3} \cdot 2^{x} - 2$

B) $f(x) = -3 \cdot 2^{x} - 1$

C) $f(x) = \frac{1}{4} \cdot 4^{x} - 1$

D) $f(x) = \frac{1}{4} \cdot 4^{x-1}$

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Answers to EXPONENTIAL FUNCTIONS MULTIPLE CHOICE

1) C	2) C	3) C	4) A
5) D	6) C	7) C	8) B

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