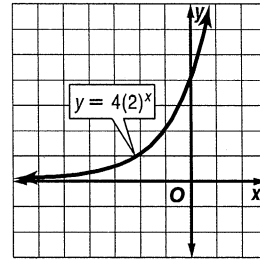


9 Chapter 9 Test, Form 1

Write the letter for the correct answer in the blank at the right of each question.

1. Find the domain and range of the function whose graph is shown.

- A. $D = \{x \mid x > 0\}$; $R = \{y \mid y > 0\}$
 B. $D = \{x \mid x \text{ is any real number}\}$; $R = \{y \mid y > 0\}$
 C. $D = \{x \mid x > 0\}$; $R = \{y \mid y \text{ is any real number}\}$
 D. $D = \{x \mid x \text{ is any real number}\}$; $R = \{y \mid y < 0\}$



1. _____

2. Which function represents exponential growth?

- F. $y = 9\left(\frac{1}{3}\right)^x$ G. $y = 4x^4$ H. $y = 12\left(\frac{1}{5}\right)^x$ J. $y = 10(2)^x$

2. _____

3. The graph of which exponential function passes through the points (0, 4) and (1, 24)?

- A. $y = 4(6)^x$ B. $y = 3(8)^x$ C. $y = 2(2)^x$ D. $y = 10(3)^x$

3. _____

4. Simplify $(x^{\sqrt{7}})^{\sqrt{3}}$.

- F. $x^{\sqrt{21}}$ G. $x^{\sqrt{7} + \sqrt{3}}$ H. $x^{\sqrt{10}}$ J. $x^{\sqrt{\frac{7}{3}}}$

4. _____

5. Solve $2^{3m-4} > 4$.

- A. $m < 0$ B. $m > 0$ C. $m > 2$ D. $m > \frac{5}{3}$

5. _____

6. Write the equation $4^3 = 64$ in logarithmic form.

- F. $\log_4 3 = 64$ G. $\log_3 4 = 64$ H. $\log_{64} 4 = 3$ J. $\log_4 64 = 3$

6. _____

7. Write the equation $\log_{12} 144 = 2$ in exponential form.

- A. $144^2 = 12$ B. $12^2 = 144$ C. $2^{12} = 144$ D. $144^{12} = 2$

7. _____

8. Evaluate $\log_2 8$.

- F. 3 G. 4 H. 16 J. 64

8. _____

9. Solve $\log_3 n = 2$.

- A. 6 B. 5 C. 8 D. 9

9. _____

10. Solve $\log_2 2m > \log_2 (m + 5)$.

- F. $m > \frac{5}{3}$ G. $m < 5$ H. $m > 5$ J. $m > -5$

10. _____