

$$A = 60,000(1 - 0.11)^7 = 60,000(0.89)$$

16. Which is the equation for the n th term of the geometric sequence -2, 8, -32, ...?

F $a_n = -2 \cdot 4^n$

G $a_n = 4 \cdot (-2)^n$

H $a_n = -2 \cdot 4^{n-1}$

J $a_n = -2 \cdot (-4)^{n-1}$

16. J

$r = -4$

$a_1 = -2$

$a_n = a_1 (r)^{n-1}$
 $= -2(-4)^{n-1}$

B. 

Bonus Simplify $(3^{n+1})(3^{2n})^4$.

<u>n</u>	<u>a_n</u>	
1		$-2(-4)^0 = -2$
2		$-2(-4)^1 = 8$
3		$-2(-4)^2 = -32$

8. Evaluate $16^{\frac{3}{4}}$.

$$\left(\sqrt[4]{16}\right)^3 = 2^3$$

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$$\left(16^{\frac{1}{4}}\right)^3$$

7. $\frac{2.4 \times 10^4}{\quad}$

8. $\underline{8}$

9. Solve $3^{x+2} = 81$.

$$3^{x+2} = 3^4$$

$$x+2=4$$

9. $\underline{x=2}$

10. ATTENDANCE The total home attendance for a professional basketball team in 2010 was about 8.2×10^5 , and in 2008 was about 7.175×10^5 . About how many times as large was the attendance in 2010 as the attendance in 2008?

$$\frac{8.2 \times 10^5}{7.175 \times 10^5} = 1.14$$

about

10. $\frac{1.14 \text{ times}}{\text{as big}}$

11. Write $4(y)^{\frac{1}{2}}$ in radical form

11. $\underline{4\sqrt{y}}$