

1. A 32 foot high tree grows to 40 feet in a year, 48 feet in the second year, and 56 feet in the third year. In what year will the tree grow to 80 feet?
 - (A) 6
 - (B) 5
 - (C) 4
 - (D) 7
 - (E) 8

2. What is the next number in the sequence that begins with 1, 3, 7, 15, ...?
 - (A) 29
 - (B) 21
 - (C) 33
 - (D) 32
 - (E) 31

3. Which rule describes the n th term of a sequence that begins with 0, 3, 2, 5, ...?
 - (A) $n - 1$
 - (B) $(-1)^n + n$
 - (C) $n^{-n} + 1$
 - (D) $(-1)^{-n} - n$
 - (E) $n + 1$

4. A bacteria colony triples in size every hour. How many hours will it take to grow by a factor of 243?
 - (A) 5
 - (B) 4
 - (C) 3
 - (D) 6
 - (E) 2

5. The n th term of a sequence is given by $2 \cdot b \cdot n$. If the third term of the sequence is 12, what is the value of b ?
 - (A) 12
 - (B) 0
 - (C) 4
 - (D) 2
 - (E) 24

6. Which polynomial describes the following sequence?
-1, 6, 25, 62
- (A) $n^2 - +2$
(B) $3n + 1$
(C) $n^3 - 2$
(D) $n^4 - n$
(E) $n^4 - n^2$
7. What are the values of x and y in the following sequence:
 $\frac{1}{2}, \frac{3}{8}, \frac{x}{y}, \frac{27}{64}, \frac{81}{256}, \dots$
- (A) $x=9$ $y=32$
(B) $x=32$ $y=9$
(C) $x=64$ $y=12$
(D) $x=18$ $y=32$
(E) $x=27$ $y=32$
8. What is the 227th term of a sequence that begins with the following numbers?
6, 4, 2, 6, 4, 2, 6, 4, 2, ...
- (A) 227
(B) 6
(C) 2
(D) 4
(E) 1
9. What is the next number in the following sequence?
110, 1, 109, 2, 107, 3, 104, 4, ...?
- (A) 99
(B) 102
(C) 103
(D) 101
(E) 100

10. The n th term of a sequence is 2^n . What is the value of the 5th term?
- (A) 30
 - (B) 32
 - (C) 40
 - (D) 64
 - (E) 16
-

Answer Key

- 1. B
- 2. E
- 3. B
- 4. A
- 5. D
- 6. C
- 7. A
- 8. D
- 9. E
- 10. B

More FREE practice tests at www.WeekendSuccess.com