

## Take Test: W6 Quiz

### Test Information

Description

Instructions

Multiple Attempts Not allowed. This test can only be taken once.

Force Completion This test can be saved and resumed later.

Save All Answers

Save and Submit

#### QUESTION 1

4 points

Save Answer

Find the indicated term using the given information.

$$a_{16} = 88, a_{13} = 73; a_1$$

- 5
- 13
- 18
- 23

#### QUESTION 2

4 points

Save Answer

Find the sum.

$$\sum_{n=1}^{25} (3n + 4)$$

- 1075
- 1175
- 1037.5
- 1262.5

#### QUESTION 3

4 points

Save Answer

Find the indicated term of the sequence.

The ninth term of the arithm

Question Completion Status:

- 21
- 40
- 64
- 16

QUESTION 4

4 points

Save Answer

Find the  $n$ th term and the indicated term of the arithmetic sequence whose initial term,  $a$ , and common difference,  $d$ , are given.

$$a = -3; d = 3$$

$$a_n = ?; a_{10} = ?$$

- $a_n = -6 + 3n; a_{10} = 24$
- $a_n = -6 + 3n; a_{10} = 36$
- $a_n = -6 - 3n; a_{10} = 24$
- $a_n = -3 + 3n; a_{10} = 24$

QUESTION 5

4 points

Save Answer

Find the fifth term and the  $n$ th term of the geometric sequence whose initial term,  $a$ , and common ratio,  $r$ , are given.

$$a = 4; r = 3\pi$$

- $a_5 = 972\pi^5, a_n = 4 \cdot 3^n \pi^n$
- $a_5 = 324\pi, a_n = 4 \cdot 3^{n-1} \pi$
- $a_5 = 324\pi^4, a_n = 4 \cdot 3^{n-1} \pi^{n-1}$
- $a_5 = 4 + 12\pi, a_n = 4 + 3\pi(n-1)$

QUESTION 6

4 points

Save Answer

Find the sum.

$$-3 + 1 + 5 + 9 + 13 + \dots + (4n - 7)$$

- $n(2n + 5)$
- $n(2n - 5)$
- $n(4n + 7)$
- $n(4n - 7)$

QUESTION 7

4 points

Save Answer

Find the sum.

$$\sum_{n=1}^{40} (-2n + 7)$$

- 1260
- 1120
- 1360
- 1320

Question Completion Status:

QUESTION 8

4 points

Save Answer

Find the sum.

$$3 + 6 + 9 + \dots + 294$$

- $\frac{29403}{2}$
- 14553
- 14259
- 14406

QUESTION 9

4 points

Save Answer

Find the indicated term using the given information.

$$a = 7, d = -\frac{1}{8}; a_{41}$$

- $\frac{97}{8}$
- 2
- $\frac{15}{8}$
- 12

QUESTION 10

4 points

Save Answer

Find the first term, the common difference, and give a recursive formula for the arithmetic sequence.

6th term is -10; 15th term is -46

- $a_1 = -30, d = 4, a_n = a_{n-1} + 4$
- $a_1 = -10, d = -4, a_n = a_{n-1} - 4$
- $a_1 = 10, d = 4, a_n = a_{n-1} + 4$
- $a_1 = 10, d = -4, a_n = a_{n-1} - 4$

QUESTION 11

4 points

Save Answer

Solve.

Suppose you just received a job offer with a starting salary of \$37,000 per year and a guaranteed raise of \$1500 per year. How many years will it be before you've made a total (or aggregate) salary of \$1,025,000?

- 25 years

- 18 years  
 21 years  
 20 years

Question Completion Status:

QUESTION 12

4 points

Save Answer

Find the indicated term using the given information.

$$a_{48} = -\frac{237}{5}, a_{26} = -\frac{127}{5}; a_3$$

- $-\frac{12}{5}$   
 2  
  $-\frac{17}{5}$   
 -1

QUESTION 13

4 points

Save Answer

Find the first term, the common difference, and give a recursive formula for the arithmetic sequence.

9th term is -68; 15th term is -122

- $a_1 = 13, d = -9, a_n = a_{n-1} - 9$   
  $a_1 = 13, d = 9, a_n = a_{n-1} + 9$   
  $a_1 = 4, d = 9, a_n = a_{n-1} + 9$   
  $a_1 = 4, d = -9, a_n = a_{n-1} - 9$

QUESTION 14

4 points

Save Answer

Find the fifth term and the nth term of the geometric sequence whose initial term,  $a$ , and common ratio,  $r$ , are given.

$$a = \sqrt{3}; r = \sqrt{3}$$

- $a_5 = 81\sqrt{3}, a_n = 3^{n-1/2}$   
  $a_5 = 9\sqrt{3}, a_n = 3^{n/2}$   
  $a_5 = 243, a_n = 3^n$   
  $a_5 = 3\sqrt{3}, a_n = 3^{n/2-1}$

QUESTION 15

4 points

Save Answer

Find the sum.

$$\sum_{n=1}^{45} (5n - 3)$$

- 4927.5

- 5040
- 5332.5
- 5175

Question Completion Status:

QUESTION 16

4 points

Save Answer

Find the sum.

$$\sum_{n=1}^{10} (3.4n + 8.75)$$

- 192.4
- 231.75
- 274.5
- 42.75

QUESTION 17

4 points

Save Answer

Find the  $n$ th term and the indicated term of the arithmetic sequence whose initial term,  $a$ , and common difference,  $d$ , are given.

$a = 4; d = -7$   
 $a_n = ?; a_{16} = ?$

- $a_n = 11 - 7n; a_{16} = -52$
- $a_n = 11 - 7n; a_{16} = -101$
- $a_n = 11 + 7n; a_{16} = -101$
- $a_n = 4 - 7n; a_{16} = -101$

QUESTION 18

4 points

Save Answer

Find the first term, the common difference, and give a recursive formula for the arithmetic sequence.

10th term is -11; 14th term is -51

- $a_1 = 79, d = -10, a_n = a_{n-1} - 10$
- $a_1 = 89, d = 10, a_n = a_{n-1} + 10$
- $a_1 = 89, d = -10, a_n = a_{n-1} - 10$
- $a_1 = 79, d = 10, a_n = a_{n-1} + 10$

QUESTION 19

4 points

Save Answer

Find the indicated term using the given information.

$a_{11} = 6, a_{18} = 20; a_6$

- 2
- 14
- 2
- 4

QUESTION 20

4 points

Save Answer

Find the first term, the common difference, and give a recursive formula for the arithmetic sequence.

7th term is 4; 13th term is 16

- $a_1 = -10, d = 2, a_n = a_{n-1} - 2$
- $a_1 = -10, d = 2, a_n = a_{n-1} + 2$
- $a_1 = -8, d = 2, a_n = a_{n-1} - 2$
- $a_1 = -8, d = 2, a_n = a_{n-1} + 2$

QUESTION 21

4 points

Save Answer

Find the sum.

$$\sum_{n=1}^{32} (-2n - 1)$$

- 1008
- 896
- 1088
- 1056

QUESTION 22

4 points

Save Answer

Solve.

A local civic theater has 22 seats in the first row and 21 rows in all. Each successive row contains 3 additional seats. How many seats are in the civic theater?

- 1070 seats
- 790 seats
- 1092 seats
- 1010 seats

QUESTION 23

4 points

Save Answer

Find the indicated term using the given information.

12, 10, 8, ... ;  $a_{26}$

- 40
- 64
- 38
- 62

QUESTION 24

4 points

Save Answer

Find the fifth term and the  $n$ th term of the geometric sequence whose initial term,  $a$ , and

common ratio,  $r$ , are given.

Question Completion Status:

$a = -6$ ;  $r = -2$

- $a_5 = -96$ ;  $a_n = -6 \cdot (-2)^{n-1}$
- $a_5 = 48$ ;  $a_n = -6 \cdot (-2)^n$
- $a_5 = 48$ ;  $a_n = -6 \cdot (-2)^{n-1}$
- $a_5 = -96$ ;  $a_n = -6 \cdot (-2)^n$

QUESTION 25

4 points

Save Answer

Find the indicated term of the sequence.

The twenty-second term of the arithmetic sequence  $-15\sqrt{3}$ ,  $-19\sqrt{3}$ ,  $-23\sqrt{3}$ , ...

- $69\sqrt{3}$
- $73\sqrt{3}$
- $-103\sqrt{3}$
- $-99\sqrt{3}$

Click Save and Submit to save and submit. Click Save All Answers to save all answers.

Save All Answers

Save and Submit