



Student Info 5

Mth 100

Quiz No.1 Spring 2023

Muhammad Zaman 🖐️ 😊

0304-4756496

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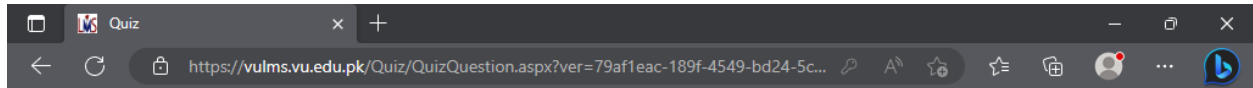
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Question # 1 of 10 (Start time: 08:56:53 AM, 30 May 2023)

Total Marks: 1

For a Geometric Progression, if first term= 7 and common ratio = 3. Then the 4th term is -----.

Select the correct option

☐	16
☐	121
☒	189
☐	144

Click to Save Answer & Move to Next Question



To find the fourth term, we can use the formula: $\text{term}_n = a * r^{(n-1)}$, where 'term_n' represents the nth term of the GP [1].

Plugging in the values, we have: $\text{term}_4 = 7 * 3^{(4-1)}$.

Calculating the values, we get: $\text{term}_4 = 7 * 3^3 = 7 * 27 = 189$.

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Quiz

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=083e4313-a3b6-4b41-...

MTH100 - General Mathematics (Quiz 1) Quiz Start Time: 08:56 AM, 30 May 2023

Question # 2 of 10 (Start time: 08:57:40 AM, 30 May 2023) Total Marks: 1

The general term of an arithmetic progression is

Select the correct option

Reload Math Equations

☐	$a_n = a - (n - 1)d$
☐	$a_n = a - (n + 1)d$
☒	$a_n = a + (n - 1)d$
☐	$a_n = a + (n + 1)d$

Click to Save Answer & Move to Next Question

Windows Taskbar: 8:58 AM 5/30/2023

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Quiz

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=33247d7d-04c3-4b28-919b-...

Question # 3 of 10 (Start time: 08:58:55 AM, 30 May 2023) Total Marks: 1

If the first term= $a=1$, common ratio= $r=1/2$; then which term of geometric sequence is $1/4$?

Select the correct option

☐	6
☐	4
☐	5
☒	3

Windows taskbar: 9:00 AM 5/30/2023

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Quiz Which of the following is the common difference d of an arithmetic sequence 1, 4, 7, 10, ...?

Which of the following is the common difference d of an arithmetic sequence 1, 4, 7, 10, ...?

Select the correct option

☐	-3
☒	3
☐	-2
☐	2

Click to Save Answer & Move to Next Question

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Quiz Which of the following is the cor x +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=4d7ef14c-60bc-4582-a92d-a...

Question # 5 of 10 (Start time: 09:01:55 AM, 30 May 2023) Total Marks: 1

Sum of first 999 terms of the sequence:
 $\{-1, 1, -1, 1, \dots\}$ is-----.

Select the correct option

☒	Undefined
☐	-1
☐	1
☐	0

Right Answer

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Quiz Which of the following is the cor x +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=cc212d62-a8ba-40d5-b2cb-a...

Question # 6 of 10 (Start time: 09:03:20 AM, 30 May 2023) Total Marks: 1

Identify the sequence as Arithmetic, Geometric or neither.
5, 10, 20, 40, ...

Select the correct option

☐	Neither
☐	Arithmetic
☒	Geometric
☐	Harmonic

Windows Taskbar: 9:04 AM 5/30/2023

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Quiz Which of the following is the correct answer? +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=827d1f6a-25ac-4f10-9f8c-89...

Question # 7 of 10 (Start time: 09:04:07 AM, 30 May 2023) Total Marks: 1

For the sequence 5, 10, 20, 40, ... , eighth term will be _____.

Select the correct option

☐	19
☐	90
☒	640
☐	70

Windows Taskbar: 9:04 AM 5/30/2023

1st term: 5 2nd term: $5 * 2 = 10$ 3rd term: $10 * 2 = 20$ 4th term: $20 * 2 = 40$

Continuing this pattern, we can find the eighth term:

5th term: $40 * 2 = 80$ 6th term: $80 * 2 = 160$ 7th term: $160 * 2 = 320$ 8th term: $320 * 2 = 640$

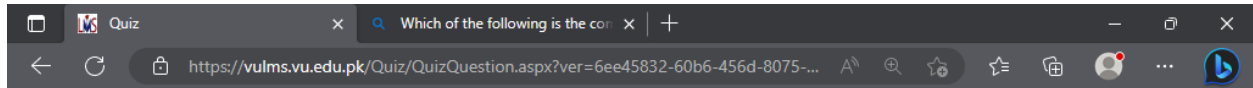
Therefore, the eighth term of the sequence 5, 10, 20, 40, ... is 640.

The correct option is "640".

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Question # 8 of 10 (Start time: 09:04:35 AM, 30 May 2023)

Total Marks: 1

What is the sigma notation of the series 3+5+7+9 ?

Select the correct option

[Reload Math Equations](#)

☒	$\sum_{n=1}^4 (2n - 1)$
☐	$\sum_{n=1}^4 (n + 1)$
☐	$\sum_{n=1}^4 (n - 1)$
☐	$\sum_{n=1}^4 (2n + 1)$

[Click to Save Answer & Move to Next Question](#)



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Quiz Which of the following is the correct answer?

Suppose that $3+8+13+18+\dots$ is an arithmetic series. What is the next term of the series?

Select the correct option

☒	23
☐	20
☐	21
☐	28

Click to Save Answer & Move to Next Question

In this series, we can observe that each term increases by 5. Therefore, the common difference (d) is 5.

To find the next term, we add the common difference to the last term given in the series.

The last term given is 18, so the next term would be:

$$18 + 5 = 23.$$

Therefore, the next term of the series is 23.

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Quiz Which of the following is the correct answer?

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=442f44d6-9c57-4f6a-b6a3-2...

If $a = 4$, and $d = 5$ in an arithmetic sequence, then what is the value of sixth term?

Select the correct option

☐	24
☒	29
☐	25
☐	23

Click to Save Answer & Move to Next Question

Windows Taskbar: 9:06 AM 5/30/2023

the general formula for finding the n th term is given by:

$$a_n = a + (n-1)d$$

where: a_n is the n th term, a is the first term, d is the common difference, and n is the term number.

Given that $a = 4$, $d = 5$, and we want to find the sixth term ($n = 6$), we can substitute these values into the formula:

$$a_6 = 4 + (6-1) * 5 = 4 + 5 * 5 = 4 + 25 = 29$$

Therefore, the value of the sixth term in the arithmetic sequence is 29.

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Quiz Which of the following is the cor x +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=36abbab0-701b-43a4-b218-...

Question # 1 of 10 (Start time: 09:11:48 AM, 30 May 2023) Total Marks: 1

Sum of the first 20 terms of the following series:
1+2+3+4+---- is-----

Select the correct option

☐	210	Right Answer
☒	220	
☐	200	
☐	55	

Click to Save Answer & Move to Next Question

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Quiz Which of the following is the cor x +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=73548fd9-542e-44ad-bd98-64cc6f...

Question # 2 of 10 (Start time: 09:13:40 AM, 30 May 2023) Total Marks: 1

For a sequence whose nth term is " $(-200/n)$ " then its 200th term is -----.

Select the correct option

☒	-1
☐	200
☐	1
☐	-4000

Click to Save Answer & Move to Next Question

The given sequence has the nth term as " $(-200/n)$ ". To find the 200th term, we substitute $n = 200$ into the given expression:

$$(-200/200) = -1.$$

Therefore, the 200th term of the sequence is -1.

Among the given options (-1, 200, 1, -4000), the correct option is -1.

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Quiz Which of the following is the correct answer?

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=7fb29307-bd32-4828-95c4-8573f7...

Question # 3 of 10 (Start time: 09:14:31 AM, 30 May 2023) Total Marks: 1

If the difference between successive terms of a series is a constant, then the series is said to be a/an _____ series.

Select the correct option

☐	Geometric
☒	Arithmetic
☐	Harmonic
☐	None

Click to Save Answer & Move to Next Question

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Quiz Which of the following is the cor x +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=cab35254-3015-4234-a77f-c81c36...

Question # 4 of 10 (Start time: 09:15:13 AM, 30 May 2023) Total Marks: 1

If $a = 4$, and $d = 5$ in an arithmetic sequence, then what is the value of sixth term?

Select the correct option

☐	25
☒	29
☐	23
☐	24

Click to Save Answer & Move to Next Question

arithmetic sequence as $a_n = a_1 + (n-1)d$, where a_n is the n th term, a_1 is the first term, and d is the common difference. Using this formula, we can find the value of the sixth term.

Substituting $a = 4$, $d = 5$, and $n = 6$ into the formula: $a_6 = 4 + (6 - 1) * 5$
 $a_6 = 4 + 5 * 5$
 $a_6 = 4 + 25$
 $a_6 = 29$

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Q#6

Given: First term (a_1) = 1 Sum of terms (S) = 101 Number of terms (n) = 101

Using the formula for the sum of an arithmetic sequence: $S = (n/2) * (a_1 + a_n)$

Substituting the given values: $101 = (101/2) * (1 + a_n)$

Simplifying the equation: $101 = 50.5 * (1 + a_n)$ $101 = 50.5 + 50.5a_n$

Rearranging the equation to isolate a_n : $50.5a_n = 101 - 50.5$ $50.5a_n = 50.5$ $a_n = 1$

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Quiz

Which of the following is the cor x | +

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MTH100 - General Mathematics (Quiz 1) Quiz Start Time: 09:11 AM, 30 May 2023

Question # 7 of 10 (Start time: 09:17:18 AM, 30 May 2023) Total Marks: 1

For the sequence of natural numbers if sum of 'n' natural numbers = $\text{Summation}(n) = 21$ then value of 'n' is -----.

Select the correct option

☐	7
☐	-6
☐	-7
☒	6

Windows taskbar: 9:18 AM 5/30/2023

The sum of the first 'n' natural numbers can be expressed as the formula:

$$\text{Summation}(n) = n(n+1)/2$$

Given that $\text{Summation}(n)$ is equal to 21, we can set up the equation:

$$n(n+1)/2 = 21$$

Multiplying both sides of the equation by 2 to eliminate the fraction:

$$n(n+1) = 42$$

Expanding the equation:

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$$n^2 + n = 42$$

Rearranging the equation to bring all terms to one side:

$$n^2 + n - 42 = 0$$

Now, we can factor the quadratic equation:

$$(n + 7)(n - 6) = 0$$

Setting each factor equal to zero:

$$n + 7 = 0 \text{ or } n - 6 = 0$$

Solving for 'n':

$$n = -7 \text{ or } n = 6$$

Among the given options (-7, -6, 6, 7), the correct value for 'n' is 6.

Therefore, the value of 'n' for which the sum of 'n' natural numbers is 21 is 6.

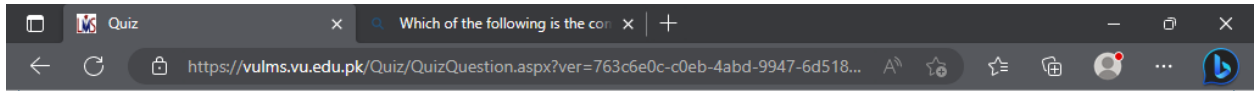
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Question # 8 of 10 (Start time: 09:18:30 AM, 30 May 2023)

Total Marks: 1

Which of the following is the common difference d of an arithmetic sequence 1, 4, 7, 10, ...?

Select the correct option

☐	2
☒	3
☐	-2
☐	-3

Click to Save Answer & Move to Next Question

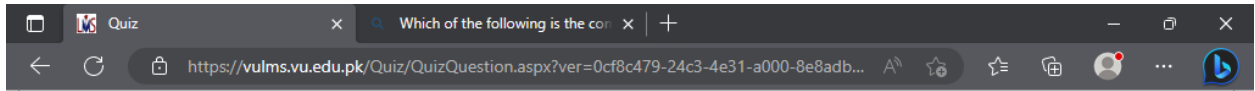


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Question # 9 of 10 (Start time: 09:19:05 AM, 30 May 2023)

Total Marks: 1

Identify the sequence as Arithmetic, Geometric or neither.
8, 13, 18, 23,

Select the correct option

☐	Geometric
☐	Neither
☒	Arithmetic
☐	Harmonic

Click to Save Answer & Move to Next Question



Examining the given sequence, we can see that the difference between consecutive terms is always 5. Since the common difference between terms is constant, the sequence 8, 13, 18, 23, ... is an arithmetic sequence.

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Quiz Which of the following is the correct answer? +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=880aeca7-73b2-4539-a90e-9b98fb... Quiz Start Time: 09:11 AM, 30 May 2023

MT1100 - General Mathematics (Quiz 1)

Question # 10 of 10 (Start time: 09:19:45 AM, 30 May 2023) Total Marks: 1

What is the sigma notation of the series 3+5+7+9 ?

Select the correct option

Reload Math Equations

☒	$\sum_{n=1}^4 (2n - 1)$
☐	$\sum_{n=1}^4 (n - 1)$
☐	$\sum_{n=1}^4 (2n + 1)$
☐	$\sum_{n=1}^4 (n + 1)$

Click to Save Answer & Move to Next Question

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Quiz

Which of the following is the correct answer?

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=5827d50c-ee3b-4a4f-a...

MTH100 - General Mathematics (Quiz 1)

Quiz Start Time: 09:22 AM, 30 May 2023

Question # 1 of 10 (Start time: 09:22:12 AM, 30 May 2023)

Total Marks: 1

The general term of an arithmetic progression is

Select the correct option

Reload Math Equations

☐	$a_n = a - (n + 1)d$
☐	$a_n = a - (n - 1)d$
☐	$a_n = a + (n + 1)d$
☒	$a_n = a + (n - 1)d$

Click to Save Answer & Move to Next Question

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Quiz Which of the following is the cor x +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=a5d0a981-08a0-4e36-9...

Question # 2 of 10 (Start time: 09:22:46 AM, 30 May 2023) Total Marks: 1

For a Geometric Progression, if first term = 7 and common ratio = 3. Then the 4th term is _____.

Select the correct option

☐	16
☒	189
☐	121
☐	144

Windows 9:23 AM 5/30/2023

The general form of a geometric progression for the first five terms is given by: a, ar, ar^2, ar^3, ar^4 , where 'a' represents the first term and 'r' represents the common ratio.

In this case, the first term 'a' is 7 and the common ratio 'r' is 3.

Calculating the 4th term: $a = 7, r = 3$

4th term = $a * r^{(4-1)} = 7 * 3^3 = 7 * 27 = 189$

Therefore, the correct option is 189.

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Quiz Which of the following is the cor x +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=5cfdc07e-9cd4-4f9d-92...

Question # 3 of 10 (Start time: 09:23:18 AM, 30 May 2023) Total Marks: 1

Identify the sequence as Arithmetic, Geometric or neither.
8, 13, 18, 23,

Select the correct option

☒	Arithmetic
☐	Neither
☐	Harmonic
☐	Geometric

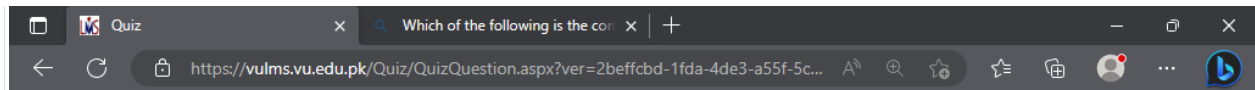
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Question # 4 of 10 (Start time: 09:23:33 AM, 30 May 2023)

Total Marks: 1

For an arithmetic sequence with first term = 1, if the sum of its '101' terms is also '101' then the common difference of this A.P is -----.

Select the correct option

☐	100
☐	101
☐	0
☒	1



The formula for arithmetic sequences is: $a_n = a_1 + (n - 1) * d$

Where: a_n represents the n th term of the sequence a_1 represents the first term of the sequence d represents the common difference

In this case, the first term (a_1) is 1 and the sum of the sequence is also 101.

We can find the common difference (d) by rearranging the formula to solve for d : $d = (a_n - a_1) / (n - 1)$

Substituting the given values: $a_n = 101$ $a_1 = 1$ $n = 101$

$$d = (101 - 1) / (101 - 1) = 100 / 100 = 1$$

Therefore, the common difference of this arithmetic progression is 1.

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Quiz Which of the following is the cor x +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=7f7201e6-54d2-4dc8-8efb-2...

Question # 5 of 10 (Start time: 09:24:25 AM, 30 May 2023) Total Marks: 1

Suppose that $3+8+13+18+\dots$ is an arithmetic series. What is the next term of the series?

Select the correct option

☐	21
☐	28
☐	20
☒	23

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Quiz Which of the following is the cor x +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=b0ce3c5f-cf90-4028-98f0-9b...

Question # 6 of 10 (Start time: 09:24:37 AM, 30 May 2023) Total Marks: 1

If the "common ratio =3",for the following geometric sequence:
(x-1),(x-1)(x-1),(x-1)(x-1)(x-1)-----,then the value of 'x' is

Select the correct option

☒	4
☐	1
☐	3
☐	2

Windows Taskbar: 9:26 AM 5/30/2023

The general formula for a geometric sequence is $a_n = a_1 * r^{(n-1)}$, where a_1 is the first term, a_n is the nth term, and r is the common ratio [1].

In this case, the given geometric sequence is: Term 1: (x-1) Term 2: (x-1)(x-1) Term 3: (x-1)(x-1)(x-1) ...

The common ratio is stated to be 3. Therefore, we have: $r = 3$

To find the value of 'x', we need to examine the terms of the sequence. Starting with the first term, we have: Term 1: (x-1)

For the second term, we multiply the first term by the common ratio: Term 2: (x-1)(x-1) = $(x-1)^2$

For the third term, we again multiply the previous term by the common ratio: Term 3: (x-1)(x-1)(x-1) = $(x-1)^3$

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By observing the pattern, we can see that each term is obtained by multiplying the previous term by $(x-1)$. Since the common ratio is 3, we can equate it to $(x-1): 3 = (x-1)$

Now, we can solve the equation to find the value of 'x': $3 = x - 1 \Rightarrow x = 4$

Therefore, the value of 'x' in the given geometric sequence is 4. Hence, the correct option is 4.

Quiz

Which of the following is the common ratio of the series if the sum of the infinite geometric series is double of the first term of the series, then the common ratio will be-----.

Question # 7 of 10 (Start time: 09:26:16 AM, 30 May 2023) Total Marks: 1

If the sum of the infinite geometric series is double of the first term of the series, then the common ratio will be-----.

Select the correct option

☐	2
☒	1/2
☐	1/3
☐	1

The formula for the sum of an infinite geometric series is $S = a / (1 - r)$, where 'S' is the sum, 'a' is the first term, and 'r' is the common ratio [3].

In this case, we are given that the sum of the infinite geometric series is double the first term, which can be represented as: $S = 2a$

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By substituting this value into the formula for the sum of the infinite geometric series, we have: $2a = a / (1 - r)$

To find the common ratio 'r', we can solve the equation for 'r': $2a(1 - r) = a$
 $2 - 2r = 1 - 2r$
 $1 - 2r = -1$
 $-2r = -1$
 $r = 1/2$

Therefore, the common ratio of the infinite geometric series, when the sum of the series is double the first term, is $1/2$. Hence, the correct option is $1/2$.



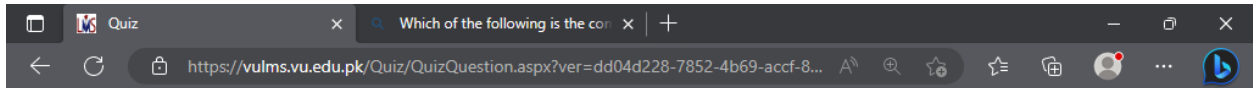
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Question # 8 of 10 (Start time: 09:27:19 AM, 30 May 2023)

Total Marks: 1

If the first term= $a=1$, common ratio= $r=1/2$; then which term of geometric sequence is $1/4$?

Select the correct option

☐	6
☐	5
☒	3
☐	4



The formula to find the n th term of a geometric sequence is given by

$a_n = a_1 \cdot r^{(n-1)}$, where a_n is the n th term, a_1 is the first term, r is the common ratio, and n is the position of the term in the sequence [3].

Given that the first term, a , is 1 and the common ratio, r , is $1/2$, we can substitute these values into the formula to find the term that is equal to $1/4$:

$$1/4 = 1 \cdot (1/2)^{(n-1)} \quad 1/4 = 1 \cdot (1/2)^{(n-1)}$$

To solve this equation for n , we can take the logarithm of both sides:

$$\log(1/4) = \log(1/2)^{(n-1)} \quad \log(1/4) = \log(1/2)^{(n-1)}$$

$$\log(1/4) = (n-1) \cdot \log(1/2) \quad \log(1/4) = (n-1) \cdot \log(1/2)$$

Using logarithmic properties, we can simplify the equation:

$$\log(1/4) = (n-1) \cdot \log(1/2) \quad \log(1/4) = (n-1) \cdot \log(1/2)$$

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$$\log_{f_0}(1/4) = (\diamond - 1) \cdot (-\log_{f_0}(2)) \log(1/4) = (n-1) \cdot (-\log(2))$$

$$\log_{f_0}(1/4) = -\log_{f_0}(2) \cdot (\diamond - 1) \log(1/4) = -\log(2) \cdot (n-1)$$

$$-2 = -\log_{f_0}(2) \cdot (\diamond - 1) -2 = -\log(2) \cdot (n-1) \quad 2 = \log_{f_0}(2) \cdot (\diamond - 1) \quad 2 = \log(2) \cdot (n-1)$$

By rearranging the equation, we can isolate $\diamond$: $2\log_{f_0}(2) = \diamond - 1 \log(2) 2 = n - 1$

$$\diamond = 2\log_{f_0}(2) + 1 \quad n = \log(2) 2 + 1$$

Calculating the value, we find: $\diamond \approx 2.32192 \quad n \approx 2.32192$

Therefore, the term of the geometric sequence that is equal to $1/4$ is approximately the 3rd term. Thus, the correct option is 3.

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Quiz Which of the following is the common ratio r of a geometric sequence 1, 3, 9, 27, 81, ...?

Question # 10 of 10 (Start time: 09:29:37 AM, 30 May 2023) Total Marks: 1

Which of the following is the common ratio r of a geometric sequence 1, 3, 9, 27, 81, ...?

Select the correct option

☐	4
☒	3
☐	-3
☐	1/3

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Quiz Which of the following is the correct answer? +
https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=41f544eb-f5d7-471e-8b41-f6...

Question # 1 of 10 (Start time: 09:32:58 AM, 30 May 2023) Total Marks: 1

If the first term= $a=1$, common ratio= $r=1/2$; then which term of geometric sequence is $1/4$?

Select the correct option

☐	5
☐	4
☒	3
☐	6

Click to Save Answer & Move to Next Question

Windows Taskbar: 9:33 AM 5/30/2023

By Muhammad
Zaman

For Paid contact: 03044756496



Student Info 5

Quiz Which of the following is the cor x +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=c9705ffb-c323-4619-ab71-6...

Question # 2 of 10 (Start time: 09:33:05 AM, 30 May 2023) Total Marks: 1

For a Geometric Progression, if first term = 7 and common ratio = 3. Then the 4th term is _____.

Select the correct option

☒	189
☐	16
☐	144
☐	121

Click to Save Answer & Move to Next Question

Windows 9:33 AM 5/30/2023

By Muhammad
Zaman

For Paid contact: 03044756496



Student Info 5

Quiz Which of the following is the correct answer?

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=d28119c5-6fa8-458e-b128-8...

Question # 3 of 10 (Start time: 09:33:12 AM, 30 May 2023) Total Marks: 1

Identify the sequence as Arithmetic, Geometric or neither.
8, 13, 18, 23,

Select the correct option

☐	Neither
☐	Harmonic
☒	Arithmetic
☐	Geometric

Click to Save Answer & Move to Next Question

Windows Taskbar: 9:33 AM 5/30/2023

By Muhammad
Zaman

For Paid contact: 03044756496



Student Info 5

Quiz

Which of the following is the correct answer?

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=75e188c9-39f0-4862-afa7-f8...

MT1100 - General Mathematics (Quiz 1)

Quiz Start time: 09:32 AM, 30 May 2023

Question # 4 of 10 (Start time: 09:33:48 AM, 30 May 2023) Total Marks: 1

What is the sigma notation of the series $3+5+7+9$?

Select the correct option

Reload Math Equations

☒	$\sum_{n=1}^4 (2n - 1)$
☐	$\sum_{n=1}^4 (n + 1)$
☐	$\sum_{n=1}^4 (2n + 1)$
☐	$\sum_{n=1}^4 (n - 1)$

Click to Save Answer & Move to Next Question

Windows Taskbar: 9:34 AM 5/30/2023

By Muhammad
Zaman

For Paid contact: 03044756496



Student Info 5

Quiz Which of the following is the common difference d of an arithmetic sequence 1, 4, 7, 10, ...?

Question # 5 of 10 (Start time: 09:34:39 AM, 30 May 2023) Total Marks: 1

Which of the following is the common difference d of an arithmetic sequence 1, 4, 7, 10, ...?

Select the correct option

☒	3
☐	-2
☐	2
☐	-3

Click to Save Answer & Move to Next Question

Windows Taskbar: 9:34 AM 5/30/2023

By Muhammad
Zaman

For Paid contact: 03044756496



Student Info 5

Quiz Which of the following is the correct option? <https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=d897db39-3f2a-4910-950d-d4b94...>

Question # 6 of 10 (Start time: 09:35:03 AM, 30 May 2023) Total Marks: 1

If the sum of first n natural numbers is $n(n+1)/2$, Then their average will be-----.

Select the correct option

☐	$n/2$
☐	$n(n+1)/2$
☒	$(n+1)/2$
☐	$(n-1)/2$

Click to Save Answer & Move to Next Question

To find the average of these numbers, we divide the sum by the count of numbers, which is n .

$$\text{Average} = S/n$$

Substituting the value of S from the sum formula, we get:

$$\text{Average} = (n(n+1)/2) / n$$

Simplifying this expression, we have:

$$\text{Average} = (n+1)/2$$

Therefore, the correct option for the average of the first n natural numbers is $(n+1)/2$.

For Paid contact: 03044756496



Student Info 5

Quiz Which of the following is the common difference d of an arithmetic sequence 1, 4, 7, 10, ...?

Which of the following is the common difference d of an arithmetic sequence 1, 4, 7, 10, ...?

Select the correct option

☐	2
☐	-3
☐	-2
☒	3

Click to Save Answer & Move to Next Question

Windows taskbar: 9:29 AM 5/30/2023

By Muhammad
Zaman

For Paid contact: 03044756496



Student Info 5

Quiz Which of the following is the cor x +

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=dd514d9a-3f96-44d7-bf28-a... A

MTH100 - General Mathematics (Quiz 1) 110% Reset Time: 09:32 AM, 30 May 2023

Question # 7 of 10 (Start time: 09:35:52 AM, 30 May 2023) Total Marks: 1

$2^1 + 2^2 + 2^3 + \dots + 2^n =$

Select the correct option

Reload Math Equations

☐ $2(2^n - 1)$

☐ none of the above

☒ $2(2^{n+1} - 1)$

☐ $2(2^{n-1} - 1)$

Click to Save Answer & Move to Next Question

The formula for the sum of an arithmetic series is given by $S = \frac{n}{2}(a + l)$, where S is the sum, n is the number of terms, a is the first term, and l is the last term.

In this case, the last term of the series is $2n$. Therefore, the sum can be calculated as:

$$S = \frac{n}{2}(a + l) = \frac{n}{2}(21 + 2n)$$

Simplifying further, we have:

$$S = \frac{(21n + 2n^2)}{2} = \frac{n(21 + 2n)}{2} = \frac{n(2n + 21)}{2}$$

Hence, the correct option for the sum of the series $21 + 22 + 23 + \dots + 2n$ is $\frac{n(2n + 21)}{2}$.

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Student Info 5

Quiz

Sum of first 999 terms of the seq x What is the summation sum of ti x

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=ff953936-ed1c-4c51-9531-47...

Question # 8 of 10 (Start time: 09:37:48 AM, 30 May 2023) Total Marks: 1

Sum of first 999 terms of the sequence:
 $\{-1, 1, -1, 1, \dots\}$ is-----.

Select the correct option

☒	Undefined
☐	1
☐	-1
☐	0

Click to Save Answer & Move to Next Question

9:39 AM 5/30/2023

By Muhammad
Zaman

For Paid contact: 03044756496



Student Info 5

Quiz

Sum of first 999 terms of the seq | What is the summation sum of ti

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=7485edfb-3e05-40d9-8a12-9...

Question # 9 of 10 (Start time: 09:39:56 AM, 30 May 2023) Total Marks: 1

Suppose that $3+8+13+18+\dots$ is an arithmetic series. What is the next term of the series?

Select the correct option

☒	23
☐	21
☐	20
☐	28

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By Muhammad
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Student Info 5

Quiz

Sum of first 999 terms of the seq

What is the summation sum of ti

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=397f1bf1-f96f-4dfe-bfd6-4bc...

MTH100 - General Mathematics (Quiz 1)

Quiz Start Time: 09:32 AM, 30 May 2023

Question # 10 of 10 (Start time: 09:40:04 AM, 30 May 2023)

Total Marks: 1

The general term of an arithmetic progression is

Select the correct option

Reload Math Equations

☐	$a_n = a - (n + 1)d$
☐	$a_n = a - (n - 1)d$
☒	$a_n = a + (n - 1)d$
☐	$a_n = a + (n + 1)d$

Click to Save Answer & Move to Next Question

Windows

9:40 AM 5/30/2023

By Muhammad
Zaman

For Paid contact: 03044756496



Student Info 5

Quiz

Sum of first 999 terms of the seq

What is the summation sum of ti

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=89be55f8-cdc7-4b9f-9114-4...

Question # 1 of 10 (Start time: 09:41:24 AM, 30 May 2023)

Total Marks: 1

Identify the sequence as Arithmetic, Geometric or neither.
5, 10, 20, 40, ...

Select the correct option

☐	Neither
☒	Geometric
☐	Harmonic
☐	Arithmetic

Click to Save Answer & Move to Next Question

Windows

9:41 AM
5/30/2023

For Paid contact: 03044756496



Student Info 5

Quiz

Sum of first 999 terms of the seq

What is the summation sum of ti

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=dff1a406-b8d3-4635-99b4-7...

Question # 2 of 10 (Start time: 09:41:51 AM, 30 May 2023) Total Marks: 1

Sum of first 2000 terms of the sequence:
 $\{-1, 1, -1, 1, \dots\}$ is-----

Select the correct option

☐	-1
☐	1
☐	Undefined
☒	0

Click to Save Answer & Move to Next Question

Windows

9:43 AM 5/30/2023

The sequence $\{-1, 1, -1, 1, \dots\}$ is an alternating sequence that alternates between -1 and 1 . Since the sequence repeats every two terms, we can observe that the sum of any two consecutive terms is always 0 .

Let's consider the first few terms of the sequence: $-1 + 1 = 0$ $1 + (-1) = 0$ $-1 + 1 = 0$ $1 + (-1) = 0$

We can see that the sum of any two consecutive terms is always 0 . Therefore, the sum of the first 2000 terms of this sequence will also be 0 .

Therefore, the correct option is:

0

The sum of the first 2000 terms of the sequence $\{-1, 1, -1, 1, \dots\}$ is 0 .

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Student Info 5

Quiz

Sum of first 999 terms of the seq x What is the summation sum of ti x

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=daf1fdf2-36c8-4b15-a11c-9a71941...

Question # 3 of 10 (Start time: 09:43:40 AM, 30 May 2023) Total Marks: 1

If the difference between successive terms of a series is a constant, then the series is said to be a/an _____ series.

Select the correct option

☐	Harmonic
☐	Geometric
☐	None
☒	Arithmetic

Click to Save Answer & Move to Next Question

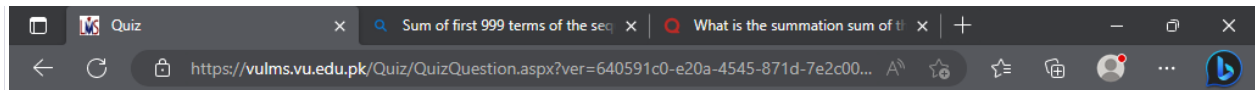
Windows Taskbar: 9:44 AM 5/30/2023

By Muhammad
Zaman

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Student Info 5



Question # 4 of 10 (Start time: 09:44:23 AM, 30 May 2023)

Total Marks: 1

If the sum of the infinite geometric series is double of the first term of the series, then the common ratio will be-----.

Select the correct option

☐	2
☐	1/3
☐	1
☒	1/2



Click to Save Answer & Move to Next Question



This conclusion is based on the understanding that the sum of an infinite geometric series can be expressed as:

$$S[\text{infinity}] = a[1] / (1 - r)$$

where $S[\text{infinity}]$ represents the sum of the infinite series, $a[1]$ is the first term of the series, and r is the common ratio. By substituting $S[\text{infinity}]$ with twice the first term ($2 * a[1]$) in the equation, we can solve for the common ratio as:

$$2 * a[1] = a[1] / (1 - r)$$

Simplifying the equation further, we can find:

$$2 = 1 / (1 - r)$$

Solving for r , we get:

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Therefore, the correct option is:

1/2



STUDENT INFO 5

**By Muhammad
Zaman**

For Paid contact: 03044756496



Student Info 5

Quiz

Sum of first 999 terms of the seq x What is the summation sum of ti x

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=cf15aa72-e414-480d-8df5-6d515a...

Question # 5 of 10 (Start time: 09:45:39 AM, 30 May 2023) Total Marks: 1

Identify the sequence as Arithmetic, Geometric or neither.
8, 13, 18, 23,

Select the correct option

☐	Geometric
☐	Harmonic
☒	Arithmetic
☐	Neither

Click to Save Answer & Move to Next Question

Windows Taskbar: 9:46 AM 5/30/2023

By Muhammad
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Student Info 5

Quiz

Sum of first 999 terms of the seq | What is the summation sum of ti

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=710b433d-8e34-468d-98fc-0aa659...

Question # 6 of 10 (Start time: 09:46:21 AM, 30 May 2023) Total Marks: 1

The explicit formula when $a_1 = 6$ and $d = 2$ is _____.

Select the correct option

- ☒ $a_n = 6 + 2(n - 1)$
- ☐ $a_n = 6 + 2n$
- ☐ $a_n = 6 + 2(n + 1)$
- ☐ $a_n = 6 - 2(n - 1)$

Click to Save Answer & Move to Next Question

Windows Taskbar: 9:47 AM 5/30/2023

By Muhammad
Zaman

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Student Info 5

Quiz

Sum of first 999 terms of the seq

What is the summation sum of ti

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=5f1e5d30-1044-4bd8-b122-94325...

Question # 7 of 10 (Start time: 09:47:29 AM, 30 May 2023) Total Marks: 1

For a Geometric Progression, if first term = 7 and common ratio = 3. Then the 4th term is _____.

Select the correct option

☐	16
☐	121
☒	189
☐	144

Click to Save Answer & Move to Next Question

Windows

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Student Info 5

Quiz

Sum of first 999 terms of the seq

What is the summation sum of ti

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=e95ba3bc-bacc-4f85-9008-5ae2e5...

Question # 8 of 10 (Start time: 09:47:37 AM, 30 May 2023) Total Marks: 1

If the "common ratio = 3", for the following geometric sequence:
 $(x-1), (x-1)(x-1), (x-1)(x-1)(x-1) \dots$, then the value of 'x' is

Select the correct option

☐ 1

☐ 2

☐ 3

☒ 4

Click to Save Answer & Move to Next Question

Windows

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Zaman

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Student Info 5

Quiz

Sum of first 999 terms of the seq

What is the summation sum of ti

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=b4ec70c7-6613-4da9-bb63-327d6...

Question # 9 of 10 (Start time: 09:47:45 AM, 30 May 2023) Total Marks: 1

Sum of how many terms of an arithmetic series will be zero provided that
1st term = -20, common difference = 20?

Select the correct option

☐	20
☒	3
☐	2
☐	10

Click to Save Answer & Move to Next Question

Windows

9:48 AM 5/30/2023

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Student Info 5

Quiz

Sum of first 999 terms of the sequence

What is the summation sum of the sequence

https://vulms.vu.edu.pk/Quiz/QuizQuestion.aspx?ver=854a76b1-8ff9-485d-8d7c-603bc0...

Question # 10 of 10 (Start time: 09:48:22 AM, 30 May 2023) Total Marks: 1

Sum of first 999 terms of the sequence:
 $\{-1, 1, -1, 1, \dots\}$ is -----.

Select the correct option

☒	0
☐	1
☐	Undefined
☐	-1

Click to Save Answer & Move to Next Question

From the given sequence, we can observe that the terms alternate between -1 and 1. The first term is -1, the second term is 1, the third term is -1, and so on.

Notice that the pattern repeats every two terms. Therefore, we can group the terms into pairs: $\{-1, 1\}$, $\{-1, 1\}$, $\{-1, 1\}$, and so on.

In each pair, the sum of the terms is always zero: $(-1 + 1) = 0$.

Since there are 999 terms in the sequence and each pair sums to zero, the sum of the first 999 terms will also be zero.

Therefore, the correct option is:

00

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Muhammad Zaman

03044756496

Remember me in you Precious Prayer

Jazak Allah

**By Muhammad
Zaman**

For Paid contact: 03044756496