

(BQC10-0016E)

- For the following series determine the sum till the 13th term:

9, 13, 17...

- A) 100
- B) 190
- C) 590
- D) 429

(BQC10-0017E)

- Let a_n be an arithmetic progression. If $a_1=4$ and $a_2=7$, determine a_{11}

- A) 28
- B) 31
- C) 34
- D) 37

(BQC10-0018E)

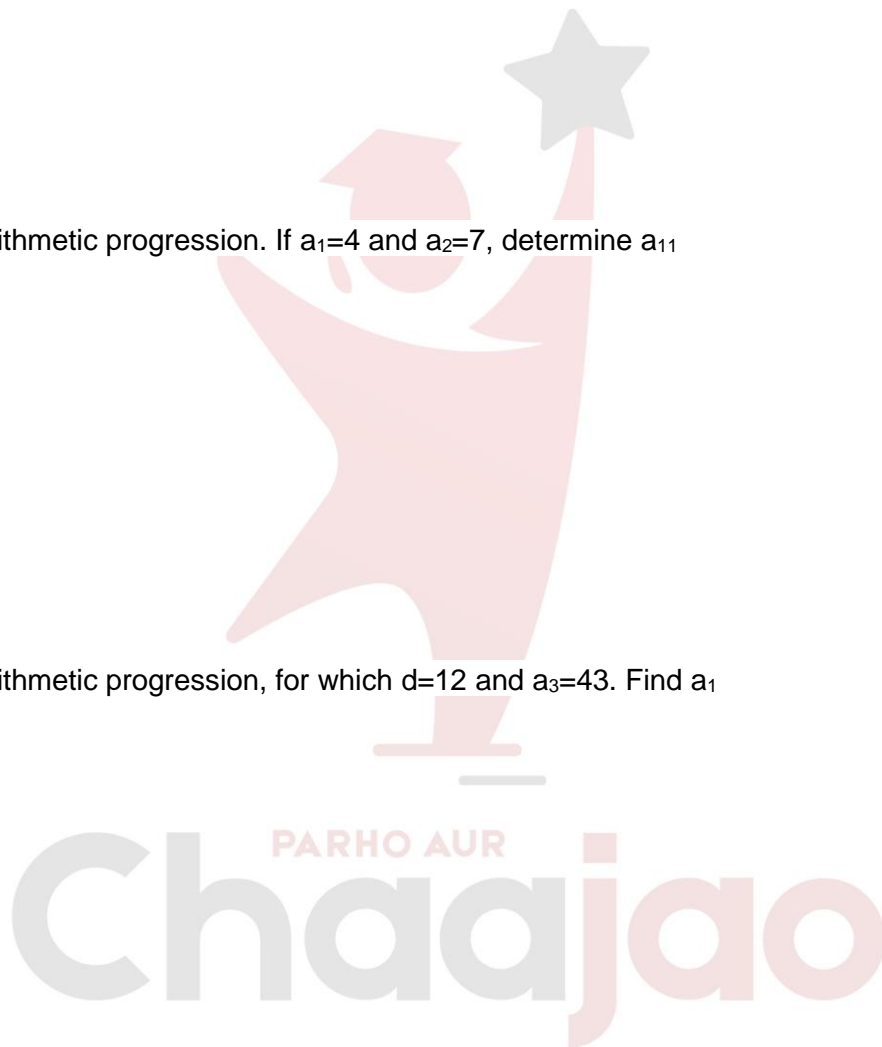
- Let a_n be an arithmetic progression, for which $d=12$ and $a_3=43$. Find a_1

- A) 19
- B) 31
- C) 43
- D) 67

(BQC10-0019E)

- Let a_n be an arithmetic progression, for which $a_1=15$ and $d=3$. Find the sum of the first 10 elements.

- A) 42
- B) 285
- C) 300
- D) 705



(BQC10-0020E)

- Find the difference d of an arithmetic progression a_n , for which $a_1=9$ and $S_5=15$
 - A) -3
 - B) 1
 - C) 3
 - D) 10

(BQC10-0021E)

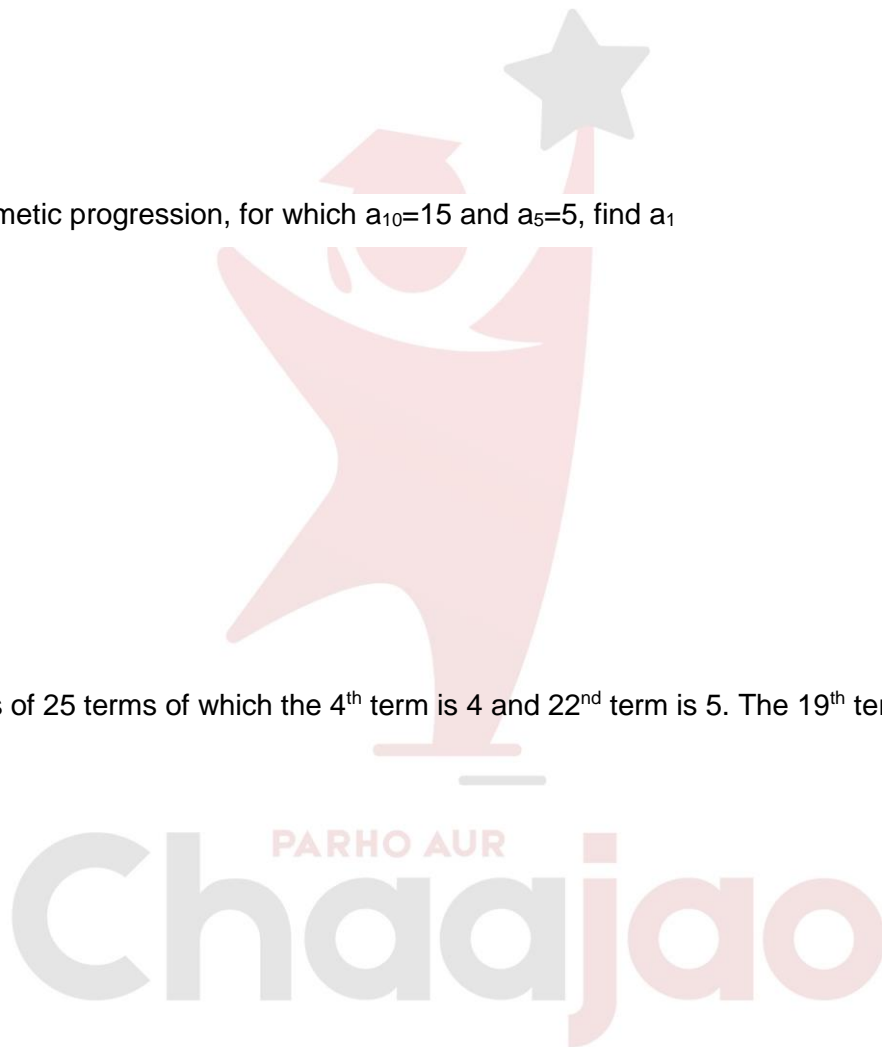
- If a_n is an arithmetic progression, for which $a_{10}=15$ and $a_5=5$, find a_1
 - A) -3
 - B) 1
 - C) 3
 - D) 10

(BQC10-0022M)

- An AP consists of 25 terms of which the 4th term is 4 and 22nd term is 5. The 19th term will be
 - A) $\frac{29}{6}$
 - B) $\frac{25}{6}$
 - C) $4\frac{5}{6}$
 - D) A & C

(BQC10-0023E)

- In an AP, the fifth term is 22 and the tenth term is 47. The sixteenth term will be
 - A) 64
 - B) 69
 - C) 73
 - D) 77



(BQC10-0024E)

- The sum to infinity of a GP is four times the first term. Find the common ratio.
A) $\frac{1}{2}$
B) $\frac{6}{7}$
C) $\frac{3}{8}$
D) $\frac{3}{4}$

(BQC10-0025M)

- The sum to infinity of the GP $-1, -\frac{1}{2}, -\frac{1}{4}, \dots$ is
A) -2
B) $-2\frac{1}{3}$
C) $-2\frac{2}{3}$
D) -3

(BQC10-0026H)

- A boy has 231 marbles. He arranged them in rows so that each row contains one marble less than preceding. The last row consists of one marble only, which form of the vertex of triangle. How many marbles are there in the base of triangle?
A) 21
B) 22
C) 23
D) 20

(BQC10-0027M)

- After striking the floor, a rubber ball rebounds to $\frac{4}{5}$ th of the height from which it has fallen. Find the total distance that it travels before coming to rest if it has been gently dropped from a height of 120 meters.
A) 540
B) 960
C) 1080
D) 1020

(BQC10-0028M)

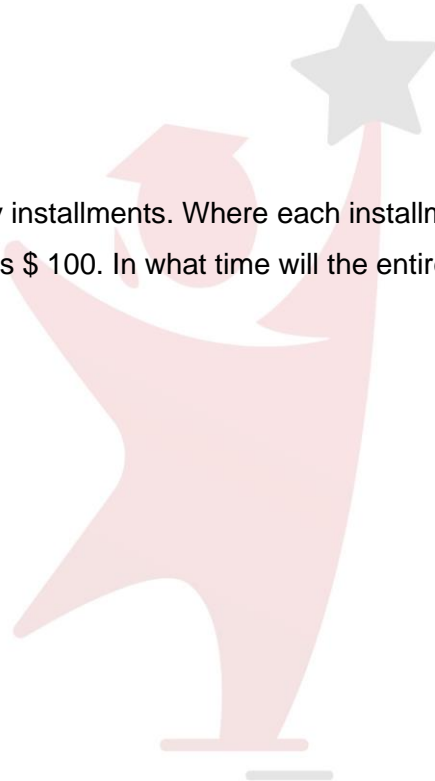
- Jason runs 1 mile, then he runs $\frac{1}{2}$ mile more, then he runs $\frac{1}{4}$ mile more, and so on. If he continues this process indefinitely, how far will he run?
 - A) 1.5
 - B) 2
 - C) 2.5
 - D) 3

(BQC10-0029H)

- A person pays \$ 975 in monthly installments. Where each installment is less than the former by \$ 5. The amount of first installment is \$ 100. In what time will the entire amount be paid?
 - A) 26 months
 - B) 15 months
 - C) Both 26 and 15 months
 - D) 18 months

(BQC10-0030E)

- In the sequence $\frac{1}{8}, \frac{1}{4}, \frac{1}{2}, \dots$ each term after the first is equal to the previous times a constant. What is the value of 13th term?
 - A) 228
 - B) 256
 - C) 512
 - D) 1024



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Answer Key	
1	D
2	C
3	A
4	B
5	A
6	A
7	D
8	D
9	D
10	A
11	A
12	C
13	B
14	B
15	C

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