

Sequences



i. For each of the number sequences below, calculate the next two numbers that will appear in the sequence

- 2, 4, 6, 8
- 2, 5, 8, 11
- 1, 4, 9, 16
- 7, 4, 1, -2
- 48, 46, 44, 42
- $1, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}$
- 99, 198, 297, 296
- 17, 21, 25, 29
- 1, 9, 17, 25, 33

ii. What is the rule for each of the number sequences in Question i?

iii. For each of the following n^{th} terms, write out the first 5 terms of the sequence

- $2n + 1$
- $4n + 5$
- $10n - 4$
- $\frac{2000}{2n}$
- $\frac{n}{3}$

iv. What is the 500th term of each of the sequences in Question iii?