



CSEE- Basic Maths

Series & Sequences

Questions and Answers

Videos with expert tutorials on each topic

CSEE Basic Maths

Revision Topic: Sequences & Series

Section A

Lesson 9 (Revision Week 4)

Instructions: Complete this worksheet and watch this revision video simultaneously on

www.mathsmemory.co.uk/International

Pause and Play the video unlimited times to review your work and write the answers in the blank spaces.
Once you have written your answers, check these with the tutorial answers, as explained in the video.

Self Assess yourself (Out of 10) on your **revision planner** after you have completed the revision video .

a) Determine which series are arithmetic and geometric?

1) 5,10,15,20

2) 3,6,12,24

3) 12,6,3,1.5

4) -2,3,8,13

5) What is the fundamental difference between an arithmetic series and a geometric series?

Bronze



Core 2- Bronze Topic: Sequences and Series

a) The first number of an arithmetic sequence is 4. The difference is 6.
State the 50th number in the sequence (using the formula).

b) Find the sum of the first 15 numbers (using the formula).

Bronze


Core 3- Bronze Topic: Sequences and Series

a) The first number of an geometric sequence is 3. The ratio is 2.
State the 6th number in the sequence (using the formula).

b) Find the sum of the first 6 numbers (using the formula).

Bronze


Core 4 - Bronze Topic: Sequences and Series

Question 4

Coby is looking at investing £3,000 in either of these two bank accounts.

Cash account

Compound Interest
3.5% per annum
for 4 years

Shares account

Compound Interest
4% for year 1
5% for year 2
5% for year 3

Which bank will give Coby the most interest at the end of their terms?

Bronze



Calculator

Core 5 - Bronze Topic: Sequences and Series

Question 5

Henry invests £4,500 at a compound interest rate of 5% per annum.

At the end of n complete years, the investment has grown to £5743.27. Find the value of n .

Bronze



Calculator

Core 6 - Bronze Topic: Sequences and Series

Question 6

Natalie invests £5,500 for 5 years. The investment gets compound interest of x % per annum. At the end of 5 years the investment is worth £7029.35

Calculate the value of x (Give your answer to 2 decimal places).

Bronze



Calculator

Core 7 - Silver Topic: Sequences and Series

a) Find the first term and the common difference of an arithmetic progression whose 4th term is 25 and the 7th term is 43.

Silver



Core 8 - Silver Topic: Sequences and Series

a) The third and fifth terms of Geometric Progression (G.P.) are 32 and 128 respectively. Find the common ratio and the first term of the G.P.

Silver


Core 9 - Silver Topic: Sequences and Series

a) How many terms of the series 7,11,15 are needed to make a sum of 168.

Silver


- a) If the sum of n terms of a geometric progression with first term 4 and common ratio $1/4$ is $21\frac{3}{4}$, find the number of terms in the sequence.

Gold 

- a) Given that 16, x , 169 are consecutive terms of a geometric progression. Find
- the value of x
 - the geometric mean

Gold 

a) The 5th term of an arithmetic progression is 21 greater than the 2nd term. The 10th term is 15 times the 2nd term. Find the common difference and the first term of the arithmetic progression.

Platinum

