

Answer all questions. You may use a calculator.

01) Find the next term of the following sequences. (2 marks)

a) 3, 8, 13, 18,,

b) 20, 14, 8, 2,,

02) Solve the following equations. (2 marks)

a) $2(5x - 7) = 16$

b) $\frac{3x}{5} + 1 = 7$

03) Find the 20th term of the sequences using the nth term. (2 marks)

a) $T(n) = 4n + 3$

b) $T(n) = 5 - 2n$

04) Factorize. (2 marks)

a) $2xy + 6y$

b) $5ab - 10b^2$

05) Which of the following sequences are arithmetic sequences? (2 marks)

a) 1, 2, 4, 8, 16, ...

b) 2,4,6,8,10, ...

c) 20, 17, 14, 11,8, ...

06) Simplify. (2 marks)

a) $2x + 3y + 5x - y$

b) $5ab - 3b + 4ba - 2b$

07) 3, 7, 11, 15, 19,... is an arithmetic sequence. (2 marks)

a) What is a in the arithmetic sequence?

b) What is d in the arithmetic sequence?

08) The general term of a sequence is $T(n) = n^2 - 3$. (2 marks)

Write the first two terms of the sequence.

..... , , ...

09) Find the n th term of the following sequence. (2 marks)

23, 28, 33, 38, 43, ...

10) Make y the subject. (2 marks)

a) $2y + x = 5$

b) $\frac{3}{y} = x$

(Total=20 marks)