Marked example 1

Paper 1 style · No calculator

1 5 marks SL 1.2 ●○○ Routine

In an arithmetic sequence, $u_3 = 11$ and $u_8 = 31$.

(a) Find the common difference. [2]

(b) Find the first term. [1]

(c) Find u_{20}. [2]

MARKSCHEME (a)

$u_8 - u_3 = 5d = 20$ (M1)

$d = 4$ A1

Total 2 marks

Note Or $u_1 + 2d = 11$ and $u_1 + 7d = 31$.

MARKSCHEME (b)

$u_1 = 11 - 2 \times 4 = 3$ A1

Total 1 mark

MARKSCHEME (c)

$u_{20} = 3 + 19 \times 4$ (M1)

$= 79$ A1

Total 2 marks

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