

Solomon Practice Paper

Core Mathematics 4B

Time allowed: 90 minutes

Centre: www.CasperYC.club

Name:

Teacher:

Question	Points	Score
1	6	
2	7	
3	8	
4	9	
5	9	
6	11	
7	12	
8	13	
Total:	75	

How I can achieve better:

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6.

$$f(x) = \frac{15 - 17x}{(2 + x)(1 - 3x)^2}, \quad x \neq -2, x \neq \frac{1}{3}.$$

(a) Find the values of the constants A, B and C such that [4]

$$f(x) = \frac{A}{2 + x} + \frac{B}{1 - 3x} + \frac{C}{(1 - 3x)^2}.$$

(b) Find the value of [7]

$$\int_{-1}^0 f(x) dx,$$

giving your answer in the form $p + \ln(q)$, where p and q are integers.

Total: 11



