

### QUESTION 1.10

(a)  $500\left(1 + \frac{6}{100 \times 4}\right)^{4 \times 3} - 500$

(*MI*)(*AI*)

**Note:** Award (*MI*) for substitution in correct formula (*AI*) for correct substitutions.

$= 97.81$

(*AI*)

(*C3*)

**Note:** The answer must be given to 2 dp or the final (*AI*) is not awarded.

(b)  $97.8090... = 500\left(1 + \frac{r}{100}\right)^3 - 500$

(*MI*)(*AI*)(*ft*)

**Note:** Award (*MI*) for substitution in correct formula, (*AI*)(*ft*) for their correct substitutions.

$= 6.14(6.13635...)$

(*AI*)(*ft*)

(*C3*)

**Note:** Follow through from their answer to part (a).

[6 marks]

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