

NAME: _____

DATE: 04/10/2018

Answer key (show all calculations for full marks)

$$46.) \quad s = \int v \, dt \quad (\text{M1})$$

$$s = \frac{1}{2} e^{2t-1} + c$$

A1A1

Substituting $t = 0.5$

$$\frac{1}{2} + c = 10$$

$$c = 9.5$$

(A1)

Substituting $t = 1$

M1

$$s = \frac{1}{2} e + 9.5 (= 10.9 \text{ to } 3 \text{ s.f.})$$

A1 N3