

'EV Increase'

$$\text{a) } 0 = 56 \times r^t \quad (1)$$

$$0 = 56 \times 0.8^t \quad (1)$$

b)

$$0 = 56 \times 0.8^5 \quad (1)$$

$$0 = 18.4 \text{ million tonnes} \quad (1)$$

$$\text{c) } S_{\infty} = \frac{a}{1-r} \quad (1)$$

$$S_{\infty} = \frac{44.8}{1-0.8} \quad (1)$$

$$S_{\infty} = 224 \quad (1)$$

Thus the total amount of oil used is 224 million tonnes. (1)

d) It predicts that the amount of oil used on transport will never actually decrease to zero, but will tend to zero as  $t$  tends to infinity. (1)