3.

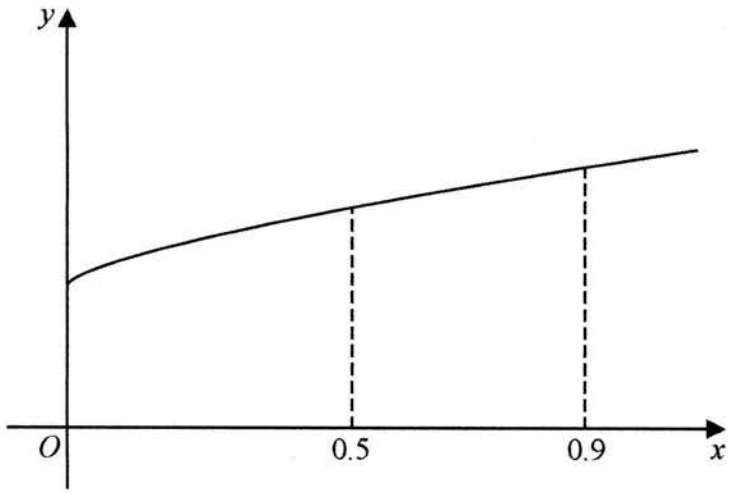

Figure 1

Figure 1 shows a sketch of part of the curve with equation $y = f(x)$

The table below shows corresponding values of x and y for this curve between $x = 0.5$ and $x = 0.9$

The values of y are given to 4 significant figures.

x	0.5	0.6	0.7	0.8	0.9
y	1.632	1.711	1.786	1.859	1.930

(a) Use the trapezium rule, with all the values of y in the table, to find an estimate for

$$\int_{0.5}^{0.9} f(x)\,dx$$

Give your answer to 3 significant figures.

(3)

(b) Using your answer to part (a), deduce an estimate for

$$\int_{0.5}^{0.9} (3f(x) + 2)\,dx$$

(3)