

6. (a) Find

$$\int \frac{3}{7x+1} \mathrm{d}x \quad (2)$$

(b) Hence find, in simplest form, the exact value of the constant p for which

$$\int_2^p \frac{3}{7x+1} \mathrm{d}x = \frac{6}{7} \quad p > 2 \quad (3)$$