

8 (a) (i) Solve $3^x = 200$, giving your answer to 2 decimal places.

[2]

*For
Examiner's
Use*

(ii) Solve $\log_5(5y + 40) - \log_5(y + 2) = 2$.

[4]

(b) Given that $\frac{(24z^3)^2}{27 \times 12z} = 2^a 3^b z^c$, evaluate a , b and c .

[3]