

Indices



1

(4 marks)

$$2^x \times 4^y = 128 \text{ and } \frac{3^x}{9^y} = \frac{1}{3}$$

Find x and y .

2

(3 marks)

$$\text{Solve } 8^x = 32.$$

3

(4 marks)

Put these in order of size, smallest first, without a calculator.

$$2^{40} \quad 3^{30} \quad 5^{20}$$

4

(3 marks)

$$\text{Work out } 27^{2/3} \times 9^{-1/2} \times 16^{3/4}.$$