



# Powers & Roots

## Answers

1

June 2018 Higher Non-Calc Paper 1

9 (a) Write down the value of  $36^{\frac{1}{2}}$      $= \sqrt{36} = \underline{\underline{6}}$  ①

(b) Write down the value of  $23^0$

$$\underline{\underline{23^0 = 1}} \quad \text{①}$$

(c) Work out the value of  $27^{-\frac{2}{3}}$

$$27^{-\frac{2}{3}} = \frac{1}{27^{\frac{2}{3}}} = \frac{1}{\underline{\underline{9}}} \quad \text{①}$$

$$\sqrt[3]{27} = 3 \quad 3^2 = 9$$

(Total for Question 9 is 4 marks)

## June 2017 Higher Non-Calc Paper 1

12 (a) Find the value of  $81^{-\frac{1}{2}}$  =  $\frac{1}{81^{\frac{1}{2}}}$  =  $\frac{1}{\sqrt{81}}$  =  $\frac{1}{9}$

①

(2)

(b) Find the value of  $\left(\frac{64}{125}\right)^{\frac{2}{3}}$

$$\left(\frac{64}{125}\right)^{\frac{2}{3}} = \sqrt[3]{\frac{64}{125}} = \frac{4}{5} \text{ ①} \quad \left(\frac{4}{5}\right)^2 = \frac{16}{25} \text{ ①}$$

(2)

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(Total for Question 12 is 4 marks)