

1 Find the value of  $3^{-1}$

(1 mark)

2 Find the value of  $\left(\frac{4}{5}\right)^{-1}$

(1 mark)

3 Find the value of  $5^{-1}$

(1 mark)

4 Find the reciprocal of 3

(1 mark)

5 Find the value of  $100^{\frac{1}{2}}$

(1 mark)

6 Find the value of  $64^{\frac{1}{2}}$

(1 mark)

7 Find the value of  $49^{\frac{1}{2}}$

(1 mark)

8 Find the value of  $81^{\frac{1}{2}}$

(1 mark)

9 Find the value of  $36^{-\frac{1}{2}}$

(1 mark)

10 Find the value of  $64^{\frac{1}{3}}$

(1 mark)

11 Find the value of  $8^{\frac{1}{3}}$

(1 mark)

12 Find the value of  $27^{\frac{1}{3}}$

(1 mark)

13 Find the value of  $125^{\frac{1}{3}}$

(1 mark)

14 Find the value of  $64^{-\frac{1}{3}}$

(1 mark)

15 Find the value of  $64^{-\frac{2}{3}}$

(2 mark)

16 Find the value of  $125^{\frac{2}{3}}$

(2 mark)

17 Find the value of  $8^{-\frac{2}{3}}$

(2 mark)

18 Find the value of  $27^{-\frac{2}{3}}$

(2 mark)

19 Find the value of  $(8x^6)^{\frac{2}{3}}$

(2 mark)

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

(2 mark)

21 Find the value of  $\left(\frac{25}{16}\right)^{-\frac{3}{2}}$   
\_\_\_\_\_ (2 mark)

22 Find the value of  $\left(\frac{8}{27}\right)^{-\frac{2}{3}}$   
\_\_\_\_\_ (2 mark)

23 Find the value of  $\left(\frac{9}{4}\right)^{-\frac{3}{2}}$   
\_\_\_\_\_ (2 mark)

24 Find the value of  $\sqrt[4]{2 \times 8 \times 10^{12}}$   
\_\_\_\_\_ (2 mark)

25 Find the value of  $\sqrt[3]{4 \times 16 \times 10^{15}}$   
\_\_\_\_\_ (2 mark)

26 Given that  $3 \times \sqrt{3} = 3^n$   
Find the value  $n$ .  
\_\_\_\_\_ (2 mark)

27 Given that  $3 \times \sqrt{27} = 3^n$   
Find the value  $n$ .  
\_\_\_\_\_ (2 mark)

28 Given that  $x = 2^p$  and  $y = 2^q$   
Express in terms of  $x$  and/or  $y$ ,

(i)  $2^{p+q}$   
(ii)  $2^{2p}$   
(iii)  $2^{q-1}$

\_\_\_\_\_ (3 mark)

29 Given that  $3^{-n} = 0.2$   
Find the value of  $(3^n)^2$   
\_\_\_\_\_ (2 mark)

30 Given that  $5^{-n} = 0.5$   
Find the value of  $(5^n)^3$   
\_\_\_\_\_ (2 mark)

31 Given that  $4^n = 8$   
Find the value of  $n$ .  
\_\_\_\_\_ (2 mark)

32 Given that  $4^{-n} = 32$   
Find the value of  $n$ .  
\_\_\_\_\_ (2 mark)