

GCSE
Powers and Roots

Worksheets

ZRTUTORING

Zack R

1 Instructions

- Use black ink or ball-point pen
- Attempt all questions
- Answer the questions in the spaces provided
- You **must** show all your working
- Diagrams are **NOT** accurately drawn, unless otherwise indicated
- Calculators may not be used

2 Advice

- Read each question carefully before you start to answer it
- Try to answer every question
- Check your answers if you have time at the end
- The marks for each question are shown in brackets, this will give an indication on the time spent
- Record how long it takes you for each question

3 Information

- The marks for each Question are shown at the bottom
- Use the marks as a guide as to how much time to spend and how much working to show

Question 1: *Work out 3^3*

.....
(Total for Question 1 is 1 marks)

Question 2: *Work out the cube root of 125*

.....
(Total for Question 2 is 1 marks)

Question 3: *Write down the value of $3^3 - 4^4$*

.....
(Total for Question 3 is 1 marks)

Question 4: *Write down 3 square numbers which are also odd numbers*

.....
(Total for Question 4 is 2 marks)

Question 5: *Write $8*8*8*8*8$ as a power of 8*

.....
(Total for Question 5 is 1 marks)

Question 6: Write as a fraction 8^{-3}

.....
(Total for Question 6 is 1 marks)

Question 7: Work out 1000^0

.....
(Total for Question 7 is 1 marks)

Question 8: Evaluate $49^{\frac{1}{2}}$

.....
(Total for Question 8 is 1 marks)

Question 9: Evaluate $27^{\frac{2}{3}}$

.....
(Total for Question 9 is 1 marks)

Question 10: Calculate $32^{0.4}$

.....
(Total for Question 10 is 1 marks)

Question 11: Evaluate $\frac{121}{49}^{-\frac{1}{2}}$

.....
(Total for Question 11 is 1 marks)

Question 12: What is the missing power $2^4 * 2^5 = 2^?$

.....
(Total for Question 12 is 1 marks)

Question 13: Write this as a singular power of 11 $1111^{-3} / 11^{-5}$

.....
(Total for Question 13 is 1 marks)

Question 14: $10^x = 1000000$ What is the value of x ?

.....
(Total for Question 14 is 1 marks)

Question 15: Write $49 * 7^3 * 7^4$ as a power of 7

.....
(Total for Question 15 is 1 marks)
