GCSE Maths

Numbers
Powers and Roots

Name:
Date:

Materials
You can use a calculator for these questions

Tips
Show how you worked out the answer if you can.

Simple Questions

1.   Calculate 3^2.

        Answer _____ **[1 mark]**

2.   What is 5^3?

        Answer _____ **[1 mark]**

3.   Find the square root of 49.

        Answer _____ **[1 mark]**

4.   What is the cube root of 27?

        Answer _____ **[1 mark]**

5.   Write 2^4 as a whole number.

        Answer _____ **[1 mark]**

Medium Questions

6.   Evaluate $6^2 + 4^2$.

       Answer _____ **[2 mark]**

7.   Simplify $9^{\frac{1}{2}}$.

       Answer _____ **[2 mark]**

8.   Find the value of $2^3 + 3^2$.

       Answer _____ **[2 mark]**

9.   Calculate $8^{\frac{2}{3}}$.

       Answer _____ **[2 mark]**

10.   If $x^2 = 144$, find the possible values of x.

       Answer _____ **[2 mark]**

Difficult Questions

11.   Simplify $16^{\frac{3}{4}}$.

        Answer _____ **[3 mark]**

12.   Calculate $125^{\frac{2}{3}}$.

        Answer _____ **[3 mark]**

13.   Evaluate $(3^2 \text{x} 2^3)^{\frac{1}{2}}$.

        Answer _____ **[3 mark]**

14.   Express $81^{0.25}$ as a fraction.

        Answer _____ **[3 mark]**

15.   Solve for x in the equation $5^{x+1} = 125$.

        Answer _____ **[3 mark]**