

Name: _____

Exam Style Questions

Cube Numbers

Cube Roots



Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

www.corbettmaths.com/contents

Video 212

Video 213

Video 214



1. From the list of numbers



3 6 8 14 16 28 41 64

(a) write down the cube numbers

8 and 64
..... and
(2)

(b) write down the cube root of 27.

3
.....
(1)

2. Write down the value of



(a) 1^3

1
.....
(1)

(b) ten cubed

1000
.....
(1)

(c) 5^3

125
.....
(1)

(d) 6 cubed

216
.....
(1)

(e) 8^3

$$\begin{array}{r} 64 \\ \times 8 \\ \hline 512 \end{array}$$

512
.....
(1)

3.



	20	64	1
343	300	726	
150	81		

Circle all the cube numbers.

(2)

4. Write down the value of



(a) $\sqrt[3]{64}$

4
.....
(1)

(b) $\sqrt[3]{8}$

2
.....
(1)

(c) $\sqrt[3]{0}$

0
.....
(1)

(d) $\sqrt[3]{1000}$

10
.....
(1)

5. Calculate 7.1^3



$$\underline{357.911}$$

(1)

6. Calculate $\sqrt[3]{614.125}$



$$\underline{8.5}$$

(1)

7. Hollie says "when you cube root a number, the answer is always smaller."



Show she is wrong.

$$\sqrt[3]{1} = 1$$

$$\sqrt[3]{0} = 0$$

$$\sqrt[3]{0.125} = 0.5$$

Counter examples can include the cube root of numbers between 0 and 1 (inclusive) (2)

8. Write down a cube number that is greater than 100 and less than 200.



$$\underline{125}$$

(1)

9. Arrange these in order, starting with the smallest.



$$2^2 \quad \sqrt[3]{27} \quad 1^3 \quad \sqrt{25}$$

4 3 1 5

$1^3, \sqrt[3]{27}, 2^2, \sqrt{25}$

(2)

10. 729 is both a square number and a cube number.



Find two other numbers that are both square numbers and cube numbers.

..... 1 and 64 etc

(2)

11. Don says



"the difference between two consecutive cube numbers is always odd."

Is Don correct?

You must show your workings.

odd \times odd \times odd = odd

even \times even \times even = even

even - odd = odd
odd - even = odd.

eg.

$5 \times 5 \times 5 = 125$

$4 \times 4 \times 4 = 64$

$125 - 64 = 61$
 ↑
 odd.

yes he is correct.

(2)