

M9

Cubes and Cube Roots

Perfect Cube Numbers = non-negative integers

0^3	0	6^3	216
1^3	1	7^3	343
2^3	8	8^3	512
3^3	27	9^3	729
4^3	64	10^3	1000
5^3	125	11^3	1331

Determine the cube roots of the given numbers:

Without a calculator:

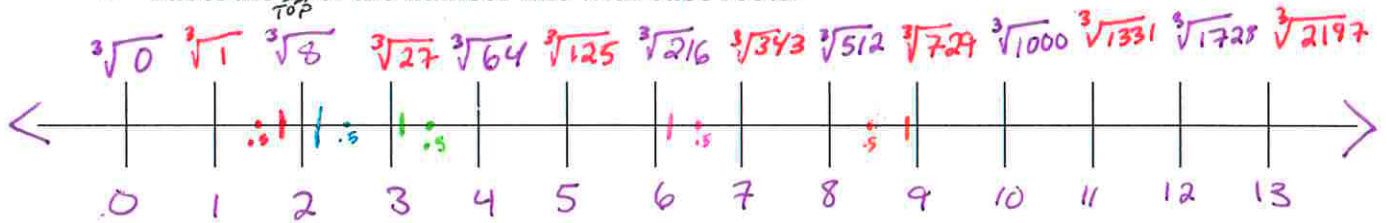
$\sqrt[3]{8}$	2
$\sqrt[3]{64}$	4
$\sqrt[3]{1000}$	10
$\sqrt[3]{125}$	5
$\sqrt[3]{1}$	1

With a calculator: (round to the nearest tenth).

$\sqrt[3]{15}$	2.5
$\sqrt[3]{90}$	4.5
$\sqrt[3]{48}$	3.6
$\sqrt[3]{150}$	5.3
$\sqrt[3]{7}$	1.9

Complete the number line:

- Add arrow that show that the number line continues to positive and negative infinity.
- Label the bottom of the number line with non-negative integers.
- Label the ~~top~~^{TOP} of the number line with cube roots.



Use the above number line to estimate cube roots to the nearest tenth.

$\sqrt[3]{5}$	$\sqrt[3]{12}$	$\sqrt[3]{28}$	$\sqrt[3]{256}$	$\sqrt[3]{700}$
≈ 1.7	≈ 2.2	≈ 3.0	≈ 6.2	≈ 8.9

Check your above estimates and note whether you were correct or not. Round to the nearest tenth.

	$\sqrt[3]{5}$	$\sqrt[3]{12}$	$\sqrt[3]{28}$	$\sqrt[3]{256}$	$\sqrt[3]{700}$
Calculated value rounded to the nearest tenth.	1.7	2.3	3.0	6.3	8.9
Correct? Yes or No.	Yes	No	Yes	No	Yes