## Cubes and Cube Roots

Perfect Cube Numbers $\boldsymbol{=}$ non-negative integers

| $0^{3}$ |  | $6^{3}$ |  |
| :--- | :--- | :--- | :--- |
| $1^{3}$ | $7^{3}$ |  |  |
| $2^{3}$ |  | $8^{3}$ |  |
| $3^{3}$ | $9^{3}$ |  |  |
| $4^{3}$ | $10^{3}$ |  |  |
| $5^{3}$ | $11^{3}$ |  |  |

Determine the cube roots of the given numbers:

Without a calculator:

| $\sqrt[3]{8}$ |  |
| :---: | :--- |
| $\sqrt[3]{64}$ |  |
| $\sqrt[3]{1000}$ |  |
| $\sqrt[3]{125}$ |  |
| $\sqrt[3]{1}$ |  |

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

| $\sqrt[3]{15}$ |  |
| :---: | :--- |
| $\sqrt[3]{90}$ |  |
| $\sqrt[3]{48}$ |  |
| $\sqrt[3]{150}$ |  |
| $\sqrt[3]{7}$ |  |

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 of the number line with cube roots.


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

| $\sqrt[3]{5}$ | $\sqrt[3]{12}$ | $\sqrt[3]{28}$ | $\sqrt[3]{256}$ | $\sqrt[3]{700}$ |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |

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 <br> rounded to the <br> nearest tenth. |  |  |  |  |  |
| Correct? Yes or No. |  |  |  |  |  |

