

Name: _____

Prime Factorization of Cube Roots

Find the Prime Factorization of the following cube numbers.

2	216
2	108
2	54
3	27
3	9
3	3
	1

$$\begin{aligned}\sqrt[3]{216} &= \sqrt[3]{(2 \times 2 \times 2) \times (3 \times 3 \times 3)} \\ &= 2 \times 3 \\ &= 6\end{aligned}$$

Examples:

1.

	64

$$\sqrt[3]{64} = \sqrt[3]{(\quad \times \quad \times \quad) \times (\quad \times \quad \times \quad)} = \quad \times \quad = \quad$$

2.

	125

$$\sqrt[3]{125} = \sqrt[3]{(\quad \times \quad \times \quad)} = \quad$$

3.

	343

$$\sqrt[3]{343} = \sqrt[3]{(\quad \times \quad \times \quad)} = \quad$$