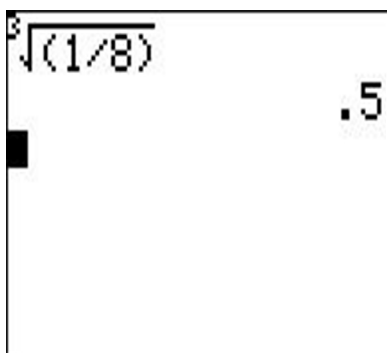![Calculator icon with + − × ÷] **Calculator Guide**

TI-83/84™ Skills
Lesson 3.1: Radicals

If the question you are given is looking for the cube root, or any root other than a square root, you will need to navigate to the correct location on your calculator to solve the problem.
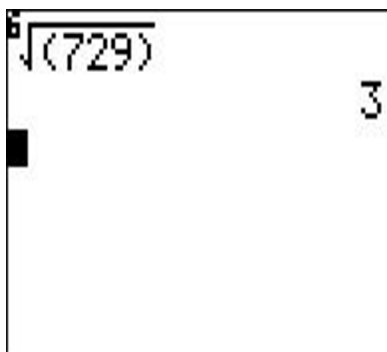
Method 1: Using radicals

a.   Calculate $\sqrt[3]{\dfrac{1}{8}}$.

- Press [MATH]
- Press [4]
- Press [(] [1] [÷] [8] [)]
- Press [ENTER]

b.   Calculate $\sqrt[6]{729}$.

- Press [6]
- Press [MATH]
- Press [5]
- Press [(] [7] [2] [9] [)]
- Press [ENTER]
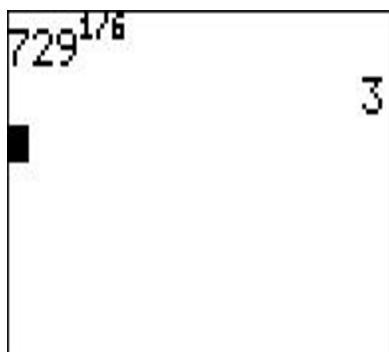
Method 2: Using Exponents

For this method, recall that $\sqrt[n]{x} = x^{\frac{1}{n}}$.

a.   Calculate $\sqrt[3]{\dfrac{1}{8}} = \left(\dfrac{1}{8}\right)^{\frac{1}{3}}$.

```
(1/8)^(1/3)
                    .5
■
```

- Press [(] [1] [÷] [8] [)]
- Press [^]
- Press [(] [1] [÷] [3] [)]
- Press [ENTER]

2.   Calculate $\sqrt[6]{729} = 729^{\frac{1}{6}}$.

```
729^1/6
                    3
■
```

- Press [7] [2] [9]
- Press [^]
- Press [(] [1] [÷] [6] [)]
- Press [ENTER]

The benefit of the second method is that it does not require searching through the [MATH] list for the right symbol.