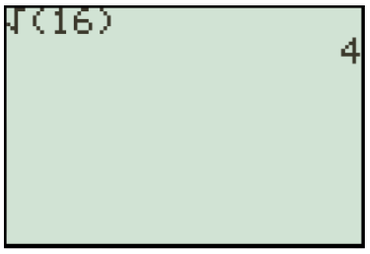
Calculator Guide
TI83/84 Skills for Unit 1

Lesson 1.1: Introduction to Radicals

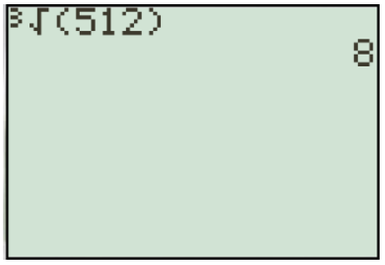
A. Entering a Radical and Evaluating

1. a. Square Root $\sqrt{16} = 4$



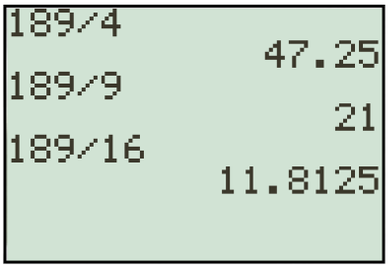
- Press [2nd] [x^2]
- Press [1] [6] [ )]
- Press [ENTER]

b. Cubed Root $\sqrt[3]{512} = 8$



- Press [MATH]
- Press [4: $\sqrt[3]{\ (\ )}$]
- Press [5] [1] [2] [ )]
- Press [ENTER]

2. Simplify the following and express in exact value form. $\sqrt{189}$



Hint:
Divide the radicand by perfect squares ($2 \times 2 = 4, 3 \times 3 = 9, 4 \times 4 = 16\ldots$) using the **TI83/84** calculator to determine whole number factors.

Since 9 divides evenly into 189 state the radical as $\sqrt{189} = \sqrt{9 \times 21}$.

So $\sqrt{189} = \sqrt{9 \times 21}$
$= 3\sqrt{21}$