Calculator Appendix B
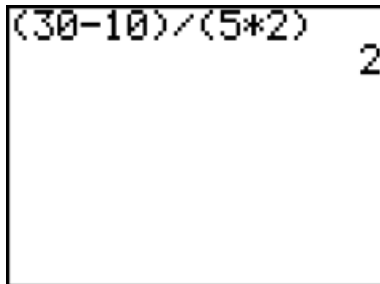
Grouping numerators and denominators

Consider the following problem that is to be entered in a graphing calculator:

$$\frac{30 - 10}{5 \cdot 2}$$

The division symbol in the calculator is "/" and this presents special problems when entered into the calculator.

To avoid problems, enter the problem as follows with the entire **numerator in parenthesis** and the **entire denominator in parenthesis**.

```
(30-10)/(5*2)
              2
```

Notice both the numerator and denominator completely enclosed in parenthesis.

Calculator display

If this problem is **improperly** entered with **no parenthesis**, it would look like this:

$$30 - 10/5* \ 2$$

Following the rules of PEMDAS we do **not** get the correct answer of 2:

$$30 - 10/5* \ 2 = 30 - 2*2 = 30 - 4 = 26$$

Always put parenthesis around the **entire numerator** and the **entire denominator**. True, there are occasions when this is not necessary; however, it never does any harm… **so always do it!**