

## SMC Department of Mathematics Problem of the Week

**Deadline:** Monday March 2nd

**Four Fours:** Using mathematical symbols to modify four fours, it is possible to write expressions for all of the numbers from 0 to 100. For example,  $2 = 4/4 + 4/4$  and  $13 = 44/4 + \sqrt{4}$ . In this manner, arrange four fours to equal 19, 23, 33, and 85.

**Solution:** There are multiple expressions for each number. The following is one possible solution.

- $19 = 4! - 4 - \frac{4}{4}$

- $23 = 4! - \sqrt{4} + \frac{4}{4}$

- $33 = 4! + 4 + \frac{4}{.4}$

- $85 = \frac{4! + \frac{4}{.4}}{.4}$