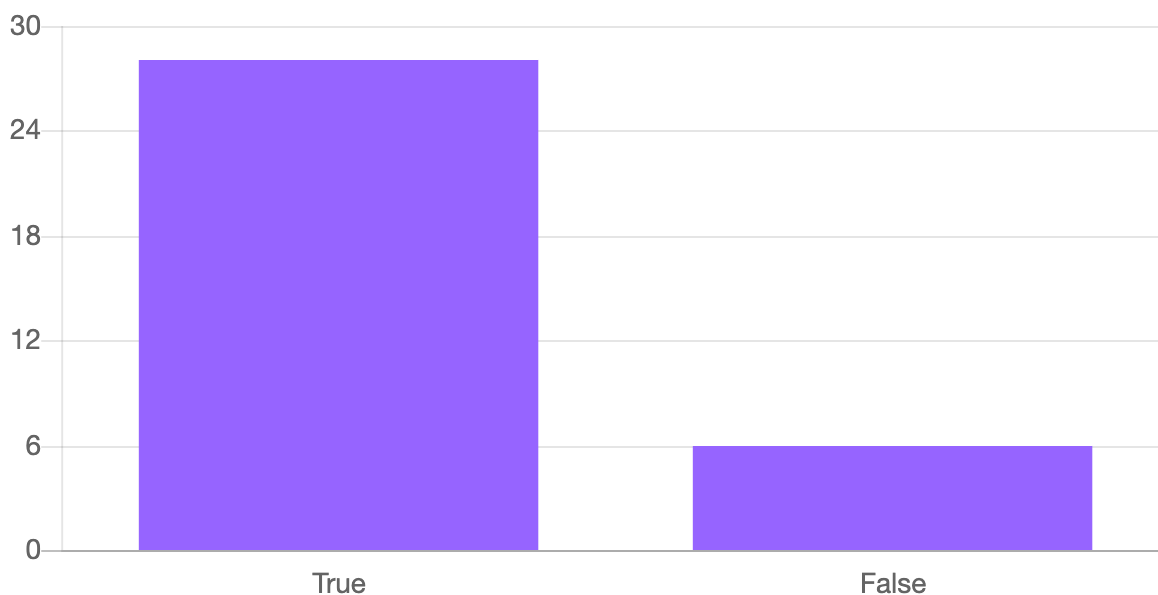


**childsmath****Math 3A03**  
**Poll Results**

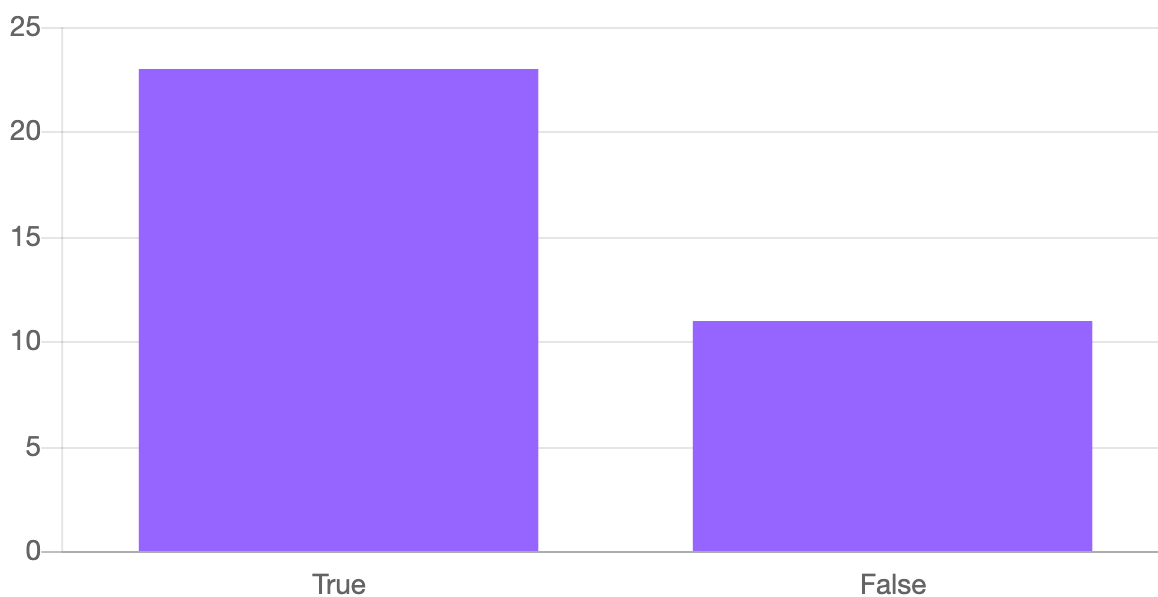
$$\int_M d\omega = \int_{\partial M} \omega$$

**Function sequences: Pointwise convergence**

**Question #1** Suppose  $\{f_n\}$  is a sequence of functions with the property that  $f_n$  converges to  $f$  pointwise. If each  $f_n$  is continuous then  $f$  must be continuous.



**Question #2** If each  $f_n$  is differentiable then  $f$  must be differentiable and  $\lim_{n \rightarrow \infty} f'_n = f'$ .



**Question #3** If each  $f_n$  is integrable then  $f$  is integrable, and  $\lim_{n \rightarrow \infty} \int_a^b f_n = \int_a^b f$ .

