



# Formulas: probability, conversions, and order of operations

## PRAXIS MATH 5733 DUMP SHEET

### Statistics & probability

- ✓ **Mean:**  $\bar{x} = \frac{\text{sum of data}}{\text{number of data points}}$
- ✓ **Median:** middle value (or average of two middle values)
- ✓ **Mode:** most frequent value
- ✓ **Range:** max - min
- ✓ **Probability:**  $P(E) = \frac{\text{favorable outcomes}}{\text{total outcomes}}$
- ✓ **Independent events:**  $P(A \text{ and } B) = P(A) \times P(B)$

### Data interpretation

- ✓ **Slope of a line:**  $\frac{\text{rise}}{\text{run}}$
- ✓ Reading tables, bar graphs, scatter plots  
→ look for trends, compare proportions

### Other useful conversions

- ✓ 1 foot = 12 inches
- ✓ 1 yard = 3 feet
- ✓ 1 mile = 5280 feet
- ✓ 1 pound = 16 ounces
- ✓ 1 gallon = 4 quarts  
= 8 pints = 16 cups