MAT 099 "MUST MEMORIZE" Formula Sheet – may NOT be used on exams

U.S. Measurements (chapter 8)

Length	Capacity
12 inches (in.) = 1 foot (ft) 3 feet = 1 yard (yd) 5280 feet = 1 mile (mi) 1 yard = 36 inches	8 fluid ounces (fl oz) = 1 cup (c) 2 cups = 1 pint (pt) 2 pints = 1 quart (qt) 4 quarts = 1 gallon (gal)
Weight	**Time**
16 ounces (oz) = 1 pound (lb) 2000 pounds = 1 ton	60 seconds (s or sec) = 1 minute (min) 60 minutes = 1 hour (hr) 24 hours = 1 day (d) 7 days = 1 week (wk)

Angles (section 11.5)

Complementary angles add up to 90 degrees and form a right angle

Supplementary angles add up to 180 degrees and form a straight line

Motion Formulas (section 11.5)

$d = r \cdot t$ Distance = Rate · Time

$r = \frac{d}{t}$ Rate = Distance / Time

$t = \frac{d}{r}$ Time = Distance / Rate

Percent (section 11.6)

Percent * Base = Amount

Discount = Percent * Original Price

New Price = Original Price - Discount

Markup = Percent * Original Price

New Price = Original Price + Markup

Sales Tax = Tax Rate * Purchase Price

Overall Price = Purchase Price + Sales Tax

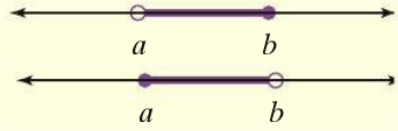
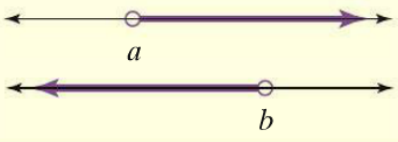
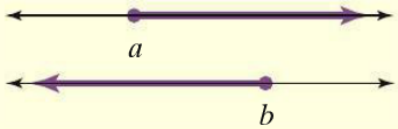
Mixture (section 11.6)

Amount of Component = Concentration * Amount of Mixture

Linear Equations (chapter 12)

Slope of a Line through two Points *Given two points* (x_1, y_1) *and* (x_2, y_2)	$m = \frac{y_2 - y_1}{x_2 - x_1}$
Slope-Intercept Form of the Equation of a Line	$y = mx + b$
Point-Slope Form of the Equation of a Line	$y - y_1 = m(x - x_1)$
Standard Form of the Equation of a Line	$Ax + By = C$
Horizontal Line	$y = b$
Vertical Line	$x = a$

Linear Inequalities (section 11.7)

Graph	Interval Notation	Set-Builder Notation
	(a, b)	$\{x \mid a < x < b\}$
	$[a, b,]$	$\{x \mid a \leq x \leq b\}$
	$(a, b]$ $[a, b)$	$\{x \mid a < x \leq b\}$ $\{x \mid a \leq x < b\}$
	(a, ∞) $(-\infty, b)$	$\{x \mid x > a\}$ $\{x \mid x < b\}$
	$[a, \infty)$ $(-\infty, b]$	$\{x \mid x \geq a\}$ $\{x \mid x \leq b\}$