Pg. A60 0.6 – Linear Inequalities in One Variable

Ex 1:
(a) Write an inequality that represents the interval and **(b)** state whether the interval is bounded or unbounded.
$[-5, \infty)$

Ex 2:
(a) Write an interval that represents the inequality **(b)** state whether the interval is bounded or unbounded.
$x < 7$

Ex 3:
Solve the inequality and sketch the solution on the real number line. (Some inequalities have no solution.)
(a) $10x < -40$ **(b)** $x + 7 \leq 12$

Ex 4:
Solve the inequality and sketch the solution on the real number line. (Some inequalities have no solution.)

Less th**and** AND (Solution is where the graphs overlap)
Great**or** OR (Solution is anything that either graph covers)

a) $|x| > 4$ **b)** $\left|1 - \frac{2x}{3}\right| \leq 1$

Ex 5:
Find the interval(s) on the real number line for which the radicand is nonnegative.

a) $\sqrt{3-x}$ **b)** $\sqrt[4]{6x+15}$