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 than AND (Solution is where the graphs overlap)
Greater 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) $\sqrt[4]{6x+15}$