❖ Show all work
❖ No notes, books, or calculators allowed.
❖ Write answers in lowest terms when possible

1. (3 points) Solve the given equation for b

$$A = \frac{1}{2}h(b + B)$$

$$\frac{2A}{h} = b + B$$

$$\boxed{b = \frac{2A}{h} - B}$$

2. (3 points) Solve the equation for x

$$\frac{x - 3}{8} = \frac{2x - 3}{12}$$

$$12(x-3) = 8(2x-3)$$

$$12x - 36 = 16x - 24$$

$$-12 = 4x$$

$$\boxed{-3 = x}$$

3. (4 points) Solve the inequality and graph the solution.

$$\frac{x}{4} + 1 \leq 5 - \frac{x}{4}$$

$$4\left(\frac{x}{4} + 1\right) \leq 4\left(5 - \frac{x}{4}\right)$$

$$x + 4 \leq 20 - x$$

$$2x \leq 16$$

$$\boxed{x \leq 8}$$