

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

1. (3 points) Solve the equation

$$\frac{1}{3}x + 5x = 8$$

$$3\left(\frac{1}{3}x + 5x\right) = 3 \cdot 8$$

$$x + 15x = 24$$

$$16x = 24$$

$$x = \frac{24}{16}$$

$$\boxed{\frac{3}{2} = x}$$

2. (4 points) Solve the equation for x

$$4(x - 5) + 14 = 18 - 6x$$

$$4x - 20 + 14 = 18 - 6x$$

$$4x - 6 = 18 - 6x$$

$$+6x \quad +6 \quad +6 \quad +6x$$

$$10x = 24$$

$$x = \frac{24}{10}$$

$$\boxed{x = \frac{12}{5}}$$

3. (3 points) Solve the equation

$$2x + 5 = 8x - 7$$

$$5 = 6x - 7$$

$$12 = 6x$$

$$\boxed{2 = x}$$