

Name: _____

Show all work and simplify all answers before circling/boxing them. If you do the problem incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for full credit.

Due next class. Students who turn assignments in late (or do not attempt a problem) forfeit their ability to rewrite those problems for credit.

- (1) Determine if the equation is a contradiction, identity, or a conditional equation:

$$7 - 9z = 2(3 - 4z) - z$$

- (2) Determine if the equation is a contradiction, identity, or a conditional equation:

$$\frac{1}{2}x - 2(x - 1) = -\frac{3}{2}x + 2$$

- (3) Determine if the equation is a contradiction, identity, or a conditional equation:

$$\frac{t + 1}{2} = \frac{3t - 2}{6}$$

- (4) Solve the equation: $-3x = -(x + 2)$

- (5) Solve the equation: $-5(3 - 2x) - (1 - x) = 4(x - 3)$

- (6) Solve the equation: $\frac{3x-1}{5} - 2 = \frac{2-x}{3}$

- (7) Solve the inequality. Write your answer in **interval notation**: $-2x < -(x + 1)$

- (8) Solve the inequality. Write your answer in **interval notation**: $3(x + 5) \leq 0$

- (9) Solve the inequality. Write your answer in **interval notation**: $\frac{1-x}{4} < \frac{2x-2}{3}$

- (10) Solve the inequality. Write your answer in **interval notation**: $-\frac{3}{4} < \frac{2-t}{5} \leq \frac{3}{4}$