

Unit 3: Equations and Inequalities

ADVANCED

Name: _____ Date: _____

Solve each equation or inequality. Show your work and give each answer as an exact value (use fractions, not rounding).

1. Solve for x: $(-3/4)(x + 8) = 15$

Answer: _____

2. Solve for x: $2.5x - 7.3 = 12.7$

Answer: _____

3. Solve for x: $-6(x - 2.5) = -39$

Answer: _____

4. Solve for x: $8x + 5 = 2$

Answer: _____

5. Solve the inequality for x: $-5x + 12 > 47$

Answer: _____

6. Solve the inequality for x: $4(x - 9) < -50$

Answer: _____

7. Solve for x: $-7x - 19 = 23$

Answer: _____

8. Solve for x: $(2/3)(x + 15) = -4$

Answer: _____

9. Solve the inequality for x: $6x - 11 > 4$

Answer: _____

10. Solve the inequality for x: $-2(x + 3.5) < 17$

Answer: _____

11. Solve for x: $3(x - 14) = -66$

Answer: _____

12. Solve the equation $9x + 4.5 = -18$, then answer yes or no: is $x = -2.5$ a solution?

Answer: _____