Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_

**Review of Equations handout: Unit One**

**Clear the equations of fractions.**

|  |  |
| --- | --- |
| 1.) (12n – 4) = 14 – 10n | 2.) $\frac{1}{8}(5 + 2x) +$ $\frac{3}{4}$ $=$ $\frac{3}{5}$  |

**Solve equation and determine whether it has one solution, no solution or infinitely many solutions.**

|  |  |
| --- | --- |
| 3.) 9(b – 4) – 7b = 5(3b – 2) | 4.) -2(6 – 10n) = 10(2n – 6) |

**Solve for the given variable.**

|  |  |  |
| --- | --- | --- |
| 5.) Solve 3 – 3(x – 2y) = 4y – 7 for y | 6.) A = $\frac{1}{2}$bh, for b | 7.) A = $\frac{1}{2}$ h(b1  + b2) solve for b1 |

**Solve the equation. Show all work.**

|  |  |
| --- | --- |
| 8.) 2|x - 5| = 8  | 9.) 3 - 2|x - 6| = 15 |

**Write and solve the absolute equation word problem.**

|  |
| --- |
| 10.) Your car averages 35 miles per gallon on the highway. The actual mileage varies from the average by 5 miles per gallon. What is the range for the mileage your car gets? |

**Answer Key: You must SHOW YOUR WORK in pencil and check your answers in pen!**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1.) n=1.19 | 2.) x= -3 1/10  | 3.) b =-2 | 4.) no solution | 5.) y = -x -5 | 6.) b = $\frac{2A}{h}$ |
| 7.) b1 = $\frac{2A}{h}$ - b2 | 8.) x = 4 or 36 | 9.) No solution  | 10.) |x - 35| = 5; between 30 and 40 mpg |