

Algebra RH - ANSWER KEY

Practice for Equations Quiz

<p>1. $5x + 3 + 2x - 6x = 4x + 12$ $x + 3 = 4x + 12$ $3 = 3x + 12$ $-9 = 3x$ $-3 = x$</p>	<p>2. $\frac{3-2x}{2} = -15$ $3 - 2x = -30$ $-2x = -33$ $x = \frac{33}{2}$</p>	<p>3. $2(x + 4) = \frac{1}{4}(8x + 24)$ $2x + 8 = 2x + 4$ $8 \neq 4$ x has no solution</p>
<p>4. $-3 - (x - 4) + 5x = -5$ $-3 - x + 4 + 5x = -5$ $1 + 4x = -5$ $4x = -6$ $x = -\frac{3}{2}$</p>	<p>5. $0.03x + 1 = 0.4$ $100(0.03x) + 100(1) = 100(0.4)$ $3x + 100 = 40$ $3x = -60$ $x = -20$</p>	<p>6. $3x - 12 + 3 = -2x + 5x - 9$ $3x - 9 = 3x - 9$ $x =$ all real numbers (identity equation)</p>
<p>7. $0.12x + 0.09(2400 - x) = 261$ $100(0.12x) + 100[0.09(2400 - x)] = 100(261)$ $12x + 9(2400 - x) = 26100$ $12x + 21600 - 9x = 26100$ $3x + 21600 = 26100$ $3x = 4500$ $x = 1500$</p>	<p>8. $\frac{3x+5}{2} = \frac{9-x}{-6}$ $-6(3x+5) = 2(9-x)$ $-18x-30 = 18-2x$ $-16x-30 = 18$ $-16x = 48$ $x = -3$</p>	<p>9. $x-4 = 3$ $x-4 = 3$ $x-4 = -3$ $x = 7$ $x = 1$</p>
<p>10. $0.1x - 0.02(x + 5) = 0.22$ $100(0.1x) - 100[0.02(x + 5)] = 100(0.22)$ $10x - 2(x + 5) = 22$ $10x - 2x - 10 = 22$ $8x - 10 = 22$ $8x = 32$ $x = 4$</p>	<p>11. $2x+2 - 3 = 9$ $2x+2 = 12$ $2x+2 = 12$ $2x+2 = -12$ $2x = 10$ $2x = -14$ $x = 5$ $x = -7$</p>	<p>12. $\frac{x}{6} - \frac{2x}{4} = -6$ $12\left(\frac{x}{6}\right) - 12\left(\frac{2x}{4}\right) = 12(-6)$ $2x - 6x = -72$ $-4x = -72$ $x = 18$</p>
<p>13. $3 3x+9 = 45$ $3x+9 = 15$ $3x+9 = 15$ $3x+9 = -15$ $3x = 6$ $3x = -24$ $x = 2$ $x = -8$</p>	<p>14. $1 - \frac{2x+5}{3} = \frac{-x}{2}$ $6(1) - 6\left(\frac{2x+5}{3}\right) = 6\left(\frac{-x}{2}\right)$ $6 - 2(2x+5) = -3x$ $6 - 4x - 10 = -3x$ $-4 - 4x = -3x$ $-4 = x$</p>	<p>15. $2 - 4(x+1) = \frac{1}{2}(-2 - 8x) - 1$ $2 - 4x - 4 = -1 - 4x - 1$ $-4x - 2 = -4x - 2$ $x =$ all real numbers (identity equation)</p>