Equations Review Guide – Test on Friday

What you need to know & be able to do	Things to remember	Examples	
1. Solving One Step Equations	• Use Inverse operations	a. Solve $$5+m=2$$	b. Solve $$\frac{x}{-7}=3$$
2. Solving Two Step Equations	• Use Inverse operations	a. Solve $$\frac{x}{6}+4=15$$	b. Solve $$\frac{x-4}{3}=-6$$
3. Solving Multi-Step Equations	• Use Inverse operations	a. Solve $$-5(3 + x) + 25 = 15$$	b. Solve $$3x – 6 = 12 – 3x$$
4. Solving Equations with Infinite or No Solution		a. Solve $$3(3x + 1) = 5x + 3x + 9$$	b. Solve $$5(x + 2) – 3x = -3(x – 5)$$
		c. Solve $$-4x + 2(5x – 6) = -3x - 39$$	d. Solve $$-10n + 3(8 + 8n) = -6(n – 4)$$

5. Creating Equations and Inequalities	• Define a variable for what you are solving for • Look for key words • Consecutive Integers: x, x + 1, x + 2, … • Consecutive Even/Odd Integers: x, x + 2, x + 4, …	a. Alex belongs to a music club. In this club, students can buy a student discount card for $19.95. This card allows them to buy CDs for $3.95 each. After one year, Alex has spent $63.40. How many CDs did Alex buy?	b. The Beach Shack rents boats for $60 for the first three hours and $30 for each additional hour after that. If you spent $180, how many hours did you rent a boat? Create an equation and then solve. Equation: _____
		c. Three consecutive integers add up to 153. Find the three integers.	d. Three ODD integers add up to 381. Find the integers.
6. Isolating a Variable (Literal Equations)	• Using the properties of equalities solve an equation with more than one variable for a chosen variable.	a. Solve the equation for h: $$S = 2\pi rh$$	b. Solve for y: 8x – 4y = 16
		c. Solve the equation for a: $$g = \frac{b + 2a}{10}$$	d. The formula a = 46c gives the floor area a in square meters that can be wired using c circuits. Solve for c.