Name:	Date:
Topic:	Class:

Main Ideas/Questions	Examples	
Solving Equations Basic Steps to Follow ① Distribute ② Simplify Each Side by combining like terms. ③ Move Variables to one side. ④ Solve using inverse operations.	**Directions:** Solve each equation below.	
	1. $6(n + 5) = 2$	**2.** $\frac{3(5-3x)}{-4} = -15$
	3. $2(2 - 7y) - 5 = 111$	**4.** $-16 = -\frac{15}{16}\left(\frac{4}{5}q + \frac{32}{3}\right)$
	5. $10a - 7 = 21 - 6a$	**6.** $\frac{5}{6}w + 21 = -\frac{1}{3}(2w - 9)$
	7. $-5(8p + 6) = 5 - 5p$	**8.** $16 - (7m + 3) = 8(1 - m)$

	9. $\frac{10x+17-(x-9)}{2}=3x+1$	**10.** $\frac{9}{8}\left(4-\frac{1}{2}a\right)=3\left(\frac{1}{4}a+\frac{5}{2}\right)$
Special Cases	**11.** $1 + 3c = 5(1 - c) + 8c$	**12.** $40 - 8x = -8(x - 5)$
Proportions	**13.** $\frac{5}{3}=\frac{2}{x+4}$	**14.** $\frac{10}{5x-9}=\frac{8}{2x-8}$
Literal Equations	**Directions:** Solve each equation or formula for the specified variable.	
	15. $C = 2\pi r$ (for π)	**16.** $A=\frac{1}{2}ap$ (for p)
	17. $\frac{a+b}{c}=5$ (for b)	**18.** $3x - 3y = 24$ (for x)
	19. $7w=\frac{1}{2}(w+v)$ (for v)	**20.** $S=(n-2)\cdot 180$ (for n)