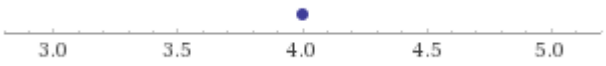
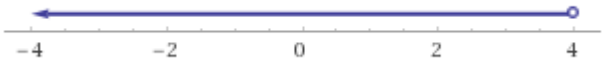
Name _____ Period ___ Date ___/___/___

Solving Equations and Inequalities

SWBAT Solve and graph linear equations and inequalities in one variable.

Equations	Inequalities
$5x - 2x + 5 = 17$ $3x + 5 = 17$ $3x = 12$ $x = 4$ 	$5x - 3x + 4 < 16$ $2x + 4 < 16$ $2x < 12$ $x < 6$ 
$5p + 5 - 2p = 17$	$6m + 5 - 2m < 17$
$5 + 5t - 2 = 17$	$3 + 5w - 1 \leq 17$
$7 - 4c + 2 = 29$	$7 - 3k + 2 \leq 24$
$7 + 2x - 2 - 4x = 33$	$5 + 3n - 1 - 4n \leq 12$

Equations	Inequalities
$-2(x-1)+4=\ 10$	$-2(x+5)-6\geq\ 10$
$-3(d+1)-2=\ 9$	$-3(b-1)+2\geq\ 14$
$5-(h-2)=\ 9$	$7-(f+4)\leq\ 10$
$4-(x-1)=\ 9$	$3+(r+5)\leq\ 10$

Equations	Inequalities
$3 + 3x = 2x - 20$	$4 + 7x > 3x - 40$
$3 - 2x = 5x - 24$	$2 - x \leq 4x - 23$
$3 - 2x + 7 = 5x + 2 - 3x$	$4 - 3x + 8 \geq 6x + 3 - 4x$
$3x - 2 + 7x = 5 + 2x - 3$	$4x - 3 + 8x \geq 6 + 3x - 4$

Equations	Inequalities
$-2x = 6(x + 3)$	$-4p < -5(p - 7)$
$-5(a - 1) = -3a$	$-4(d - 2) > -2d$
$-\frac{1}{3}(b - 6) = -5b - 12$	$4(c - 7) < -9c - 17$
$-4g + 10 = -\frac{1}{2}(g - 4)$	$-3t - 5 \leq 2(t + 4)$

Equations	Inequalities
$-x+3=3-x$	$-x+3>3-x$
$2x+1=2x-3$	$-x+3\geq 3-x$
$3x+7=3x-1$	$-4x+3\leq 1-4x$
$3x+7=7+3x$	$6x+3>1+6x$

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Isolating a Variable – Homework

1) $-20 = -4x - 6x$

2) $6 > 1 - 2n + 5$

3) $8x - 2 = -9 + 7x$

4) $a + 5 = -5a + 5$

5) $4m - 4 < 4m$

6) $p - 1 = 5p + 3p - 8$

7) $5p - 14 = 8p + 4$

8) $p - 4 = -9 + p$

9) $\mathbf{-8 > -\frac{1}{2}(x + 4)}$

10) $\mathbf{\frac{1}{3}(16b - 2) = 26}$

11) $14 \geq -(p - 8)$

12) $-(7 - 4x) = 9$

13) $-18 - 6k \leq 6(1 + 3k)$

14) $5n + 34 = -2(1 - 7n)$

15) $2(4x - 3) - 8 = 4 + 2x$

16) $3n - 5 = -8(6 + 5n)$

17) $-(1 + 7x) - 6(-7 - x) = 36$

18) $-3(4x + 3) + 4(6x + 1) = 43$

19) $24a - 22 = -4(1 - 6a)$

20) $-5(1 - 5x) + 5(-8x - 2) = -4x - 8x$