Algebra 1 Bellwork Tuesday, November 26, 2013

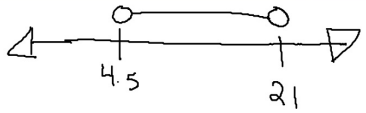
For problems 1 to 3:
Solve each compound inequality then graph the solution.

1. $6q - 11 > 16$ and $8 - 2q > -34$

$+11 \quad +11 \qquad -8 \quad -8$

$\frac{6q}{6} > \frac{27}{6} \qquad \frac{-2q}{-2} > \frac{-42}{-2}$

$q > 4.5$ and $q < 21$ → $4.5 < q < 21$



2. $4 - 4k \geq 28$ or $4k + 8 - 3k \geq 21$

$-4 \quad -4 \qquad -8 \quad -8$

$\frac{-4k}{-4} \geq \frac{24}{-4} \qquad k \geq 13$

$k \leq -6$ or $k \geq 13$

3. $-23 < 4m - 3 < 15$

$+3 \quad +3 \quad +3$

$\frac{-20}{4} < \frac{4m}{4} < \frac{18}{4}$

$-5 < m < 4.5$

4. Solve this inequality.

$4m - 2(m - 7) - 3 + m > 5m - 14 - 2m + 5$

$4m - 2m + 14 - 3 + m > 3m - 9$

$3m + 11 > 3m - 9$

$+9$

$3m + 20 > 3m$

$-3m$

$20 > 0$

Sol: All Real #s

5. Solve this inequality.

$3k - 9 + 2k \leq 5 - 6k - 14$

$5k - 9 \leq -9 - 6k$

$-5k \leq -6k$

$\frac{0}{-11} \leq \frac{-11k}{-11}$

$0 \geq k$