Notes – College Algebra

Section 3.6 – Compound Inequalities

Objective: To solve and graph inequalities containing the words ‘and’ / ‘or’

Do Now: Solve the inequalities

1. $3\left(x-5\right)+9x\geq -3$
2. $3m-4\leq 6m+11$







Ex: All real numbers that are greater than -2 and less than 6.

Ex: All real numbers that are less than 0 or greater than or equal to 5.



Ex: What are the solutions of $-3\leq x-4<-1$? Graph the solutions.

Ex: What are the solutions of $7<x+6\leq 12$? Graph the solutions.





Ex: What are the solutions of $3t+2<-7 or-4t+5<1$

Ex: What are the solutions of $12h-3\geq 15h or 5>-0.2h+10$



Ex: What is the graph of [-4, 6)? How do you write [-4, 6) as an inequality?

Ex: What is the graph of x$\leq $-1 or x > 2? How do you write x$\leq $-1 or x > 2 in interval notation?

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