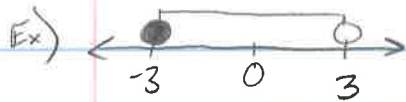


9/8 Algebra - Downing

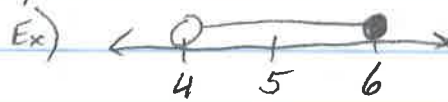
HW Quiz

Notes - 2.5 Compound Inequalities



$$x \geq -3 \text{ AND } x < 3$$

$$-3 \leq x < 3$$



$$x > 4 \text{ AND } x \leq 6$$

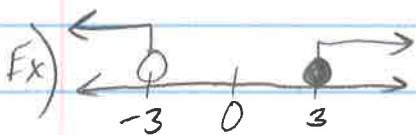
$$4 < x \leq 6$$

Ex) "B" Grade

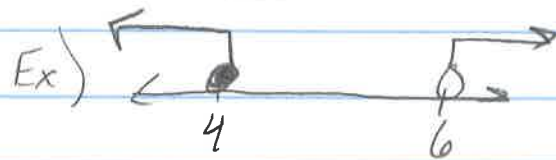


$$80 \leq x < 90$$

"AND" Statements



$$x < -3 \text{ OR } x \geq 3$$



$$x \leq 4 \text{ OR } x > 6$$

"OR" Statements

Solving compound Inequalities

Ex) $-3 < 2k - 5 < 7$

$$\begin{array}{ccc} -3 < 2k - 5 & 2k - 5 < 7 \\ +5 & +5 & +5 \end{array}$$

$$\begin{array}{ccc} 2 < 2k & 2k < 12 \\ \frac{2}{2} & \frac{2k}{2} & \frac{12}{2} \end{array}$$

$$1 < k \quad k < 6$$

$$1 < k < 6$$



Ex) $-3 < 2k - 5 < 7$

$$\begin{array}{ccc} -3 < 2k - 5 < 7 \\ +5 & +5 & +5 \end{array}$$

$$\begin{array}{ccc} 2 < 2k < 12 \\ \frac{2}{2} & \frac{2k}{2} & \frac{12}{2} \end{array}$$

$$1 < k < 6$$

OR

$$\text{Ex) } \frac{2p+1}{-1} < \frac{-7}{-1} \quad \text{OR} \quad \frac{3-2p}{-3} \leq \frac{-1}{-3}$$

$$\frac{2p}{2} < \frac{-8}{2} \qquad \frac{-2p}{-2} \leq \frac{-4}{-2}$$

$$p < -4 \quad \text{OR} \quad p \geq 2$$



HW: p. 85 # 3, 6-8, 13, 14, 17, 19