6.5. Solving Compound Inequalities w/ "OR"

Dec. 15, 2006

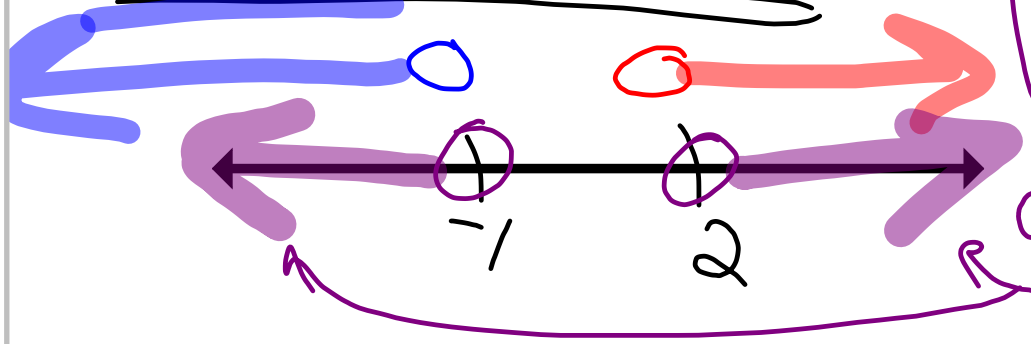
"or" $\{2,4,6,8\}$ or $\{1,2,3,4,5\}$

Union = $\{1,2,3,4,5,6,8\}$

Union all together

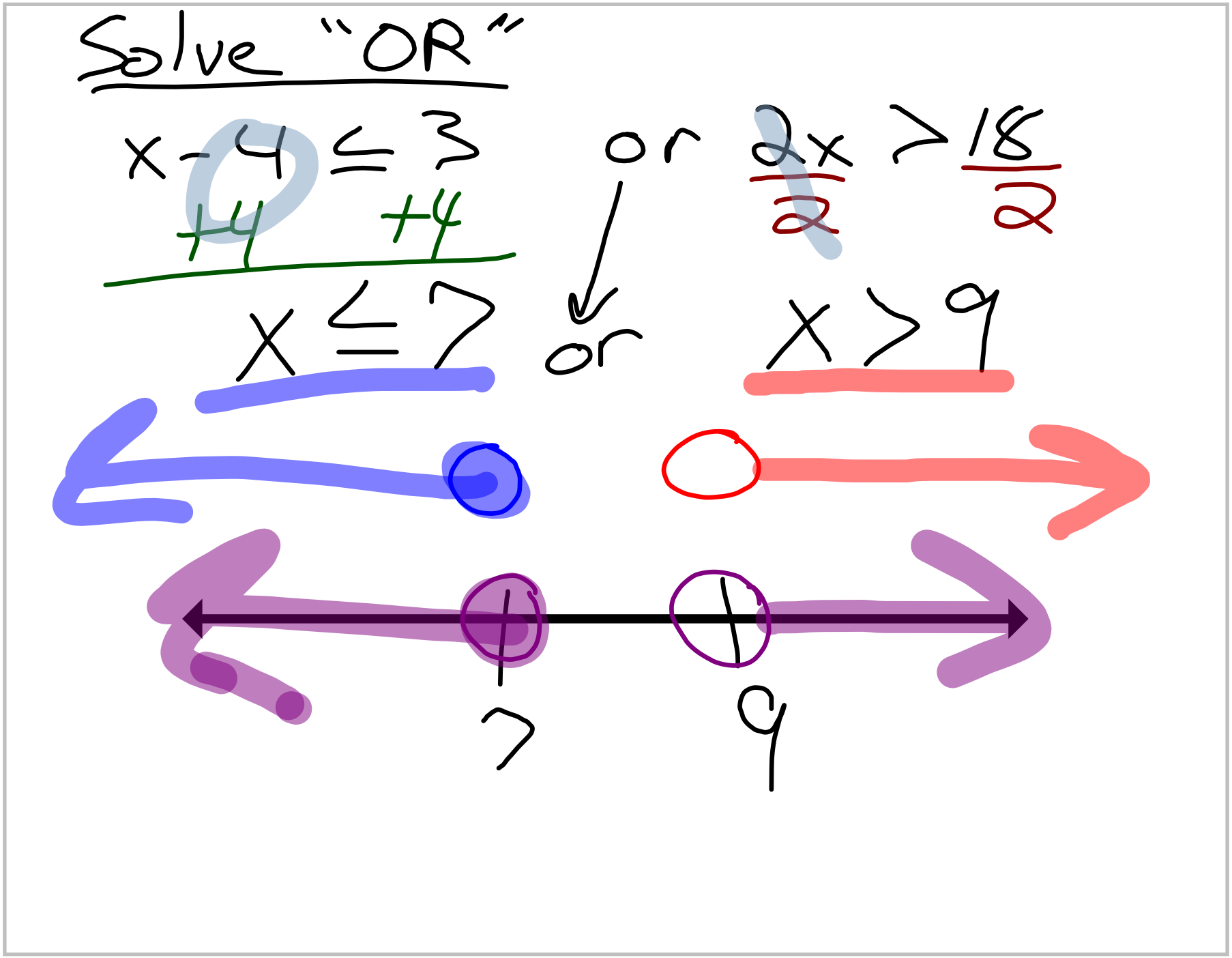
Write a Compound Inequality that represents $\mathbb{R}$ less than -1 "OR" greater than 2.

$x < -1$ or $x > 2$



* Cannot Combine for that would be "and"

Graph is of our C.I.


Solve "OR"
x - 4 ≤ 3
+4 +4
x ≤ 7
or
2x/2 > 18/2
x > 9
or
7
9

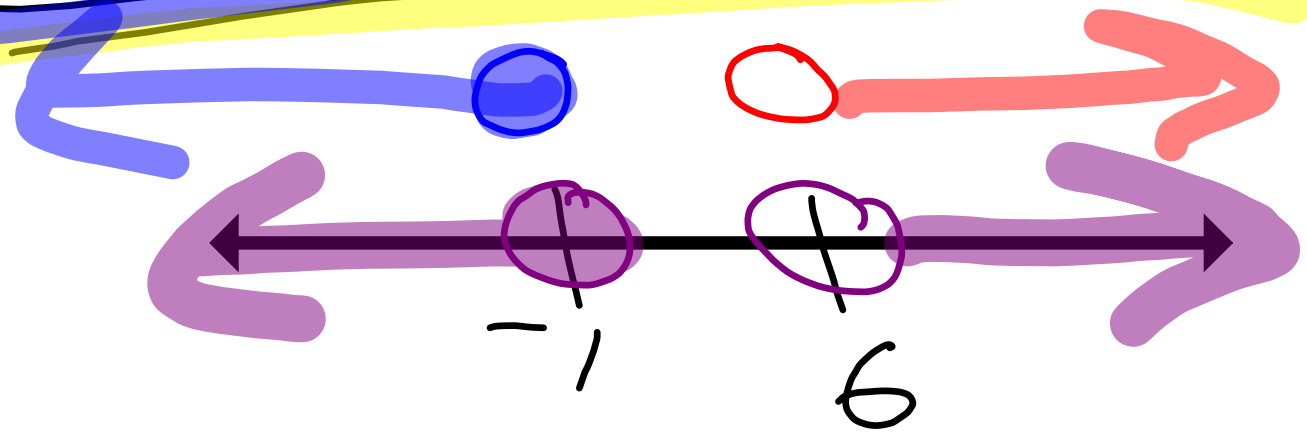
$-3x + 1 \geq 4$ or $2x - 5 > 7$

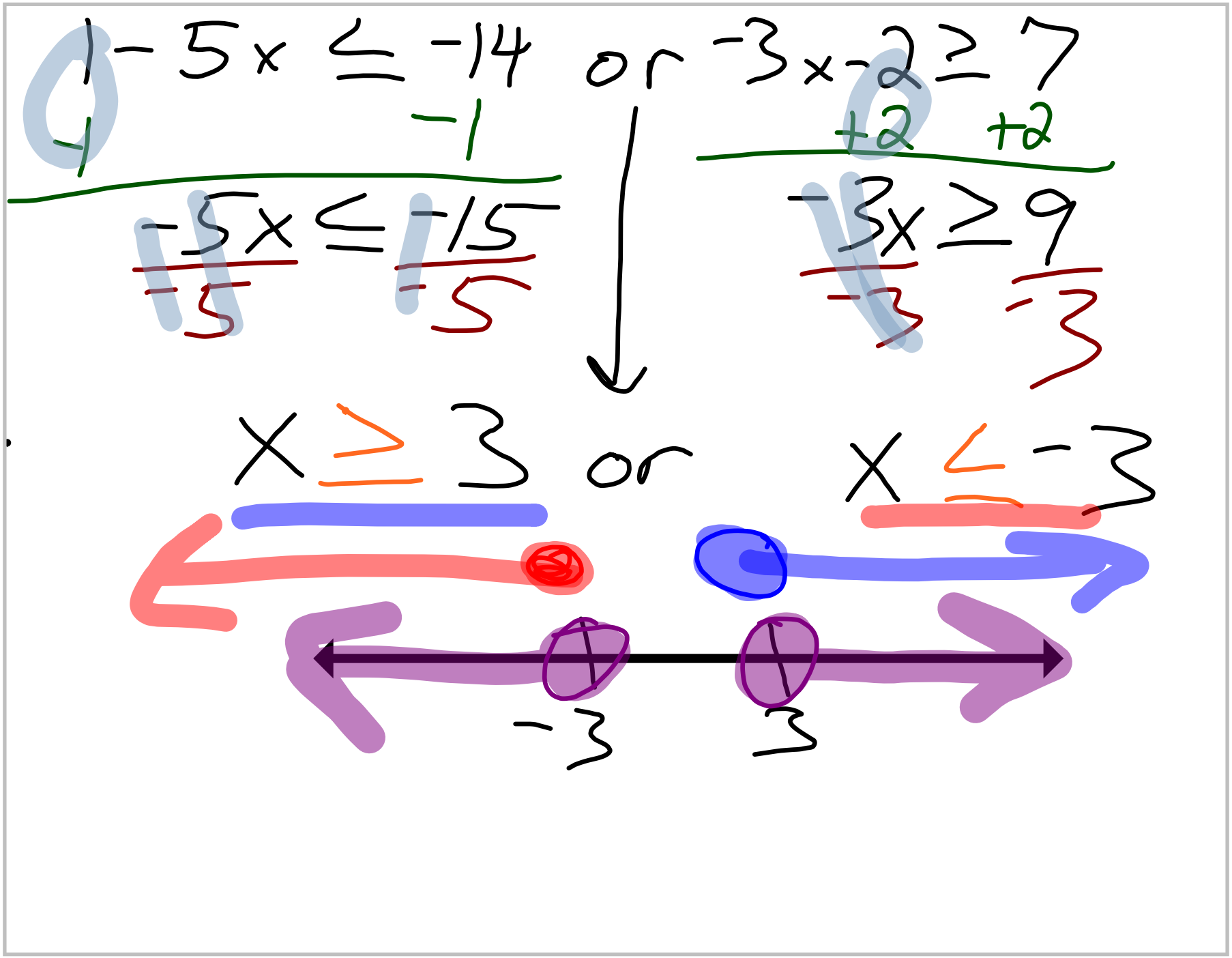
$-1 \quad -1$ $+5 \quad +5$

$-3x \geq 3$ $2x > 12$

$\frac{-3x}{-3} \leq \frac{3}{-3}$ $\frac{2x}{2} > \frac{12}{2}$

$x \leq -1$ or $x > 6$




1 − 5x ≤ −14
−1 −1
−5x ≤ −15
−5 −5
x ≥ 3
or
−3x − 2 ≥ 7
+2 +2
−3x ≥ 9
−3 −3
x ≤ −3
−3
3

O.T.L.

Pg 352: 21, 24, 25, 28, 29, 32, 33, 36–40(a)