

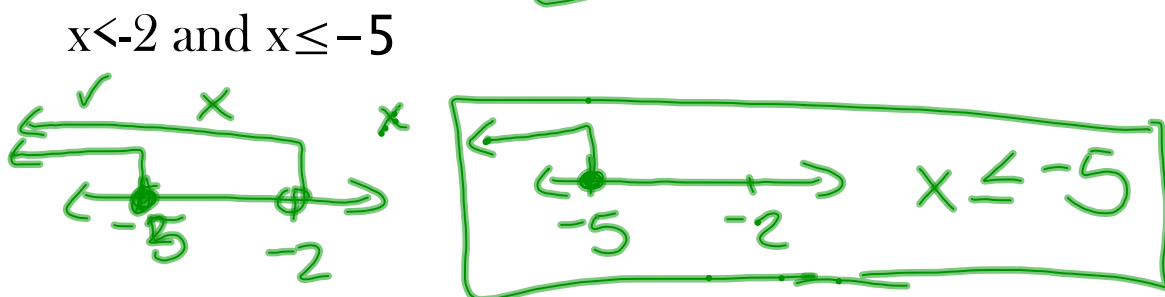
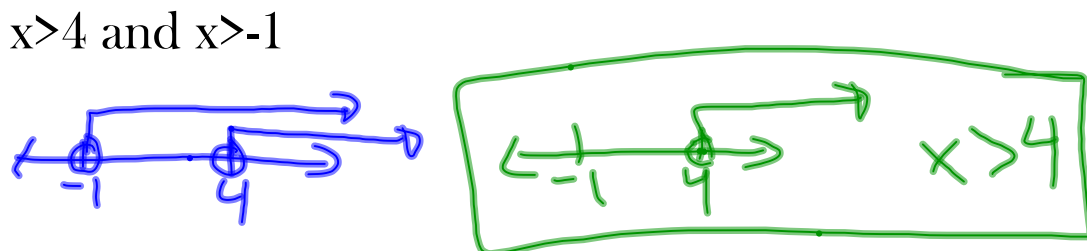
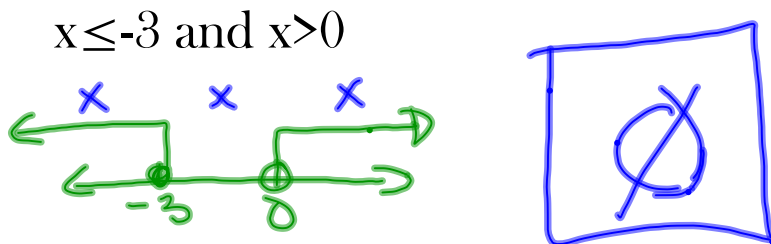
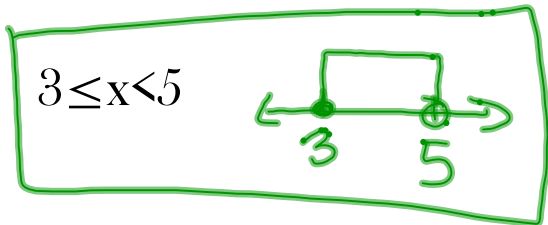
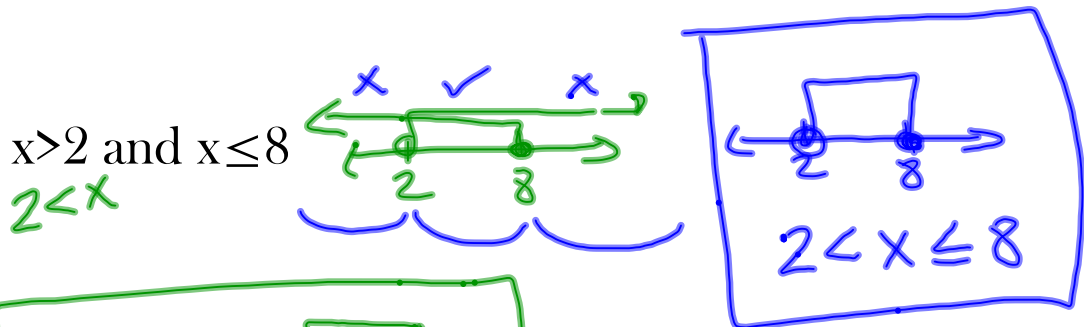
Homework Questions p.62 #13-24

Homework Assessment
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14. $1+2x < 2(x-1)$ **solve**

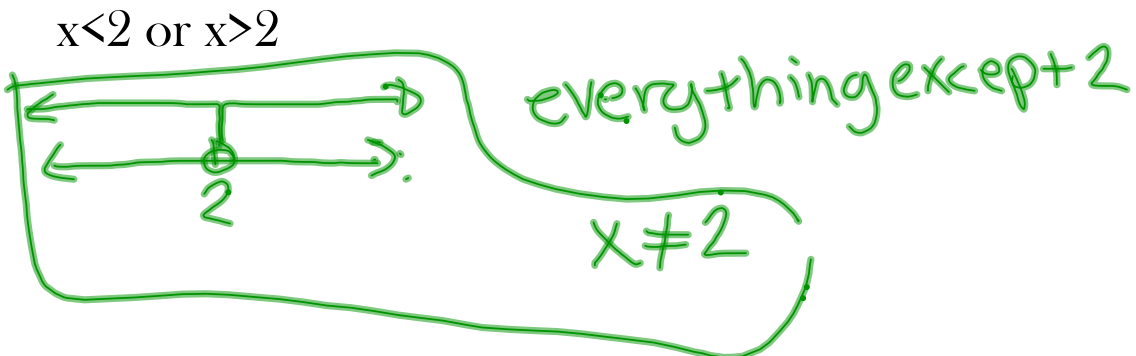
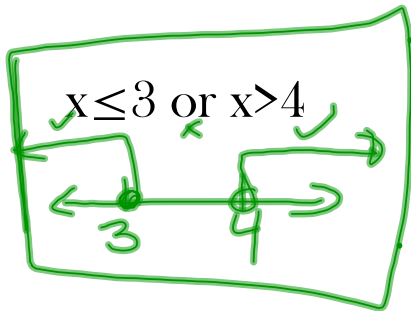
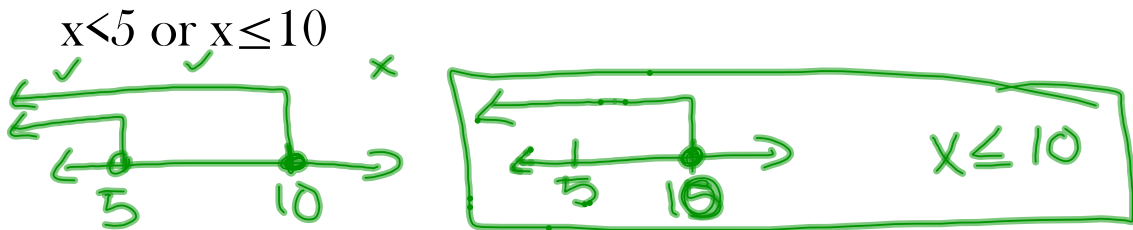
there are two types of combined inequalities: and's and or's

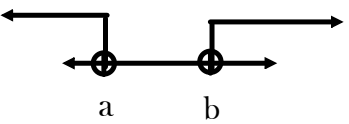
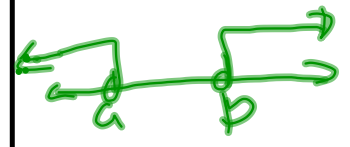
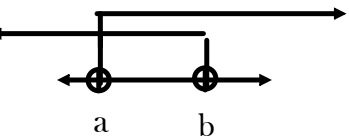
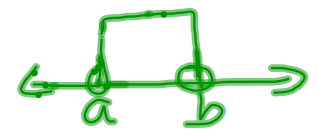
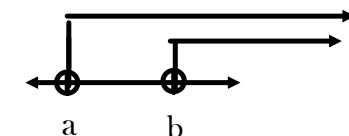

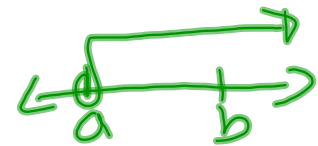
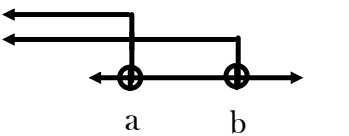

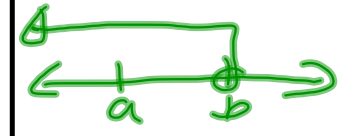
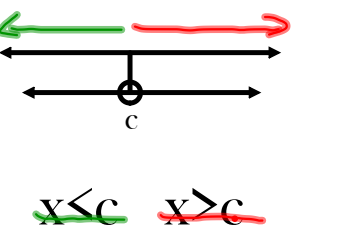
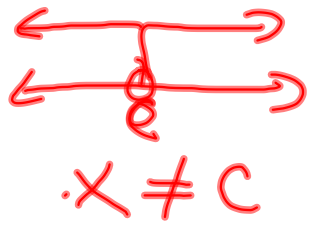
AND: both statements must be true, space where graphs overlap



OR: at least one statement is true, space where one or more of the graphs exist

$x \geq 3$ or $x > -3$



	AND	OR
 <p>$x < a \quad x > b$</p>	\emptyset	 <p>$x < a \text{ or } x > b$</p>
 <p>$x > a \quad x < b$</p>	 <p>$a < x < b$</p>	\mathbb{R}
 <p>$x > a \quad x > b$</p>	 <p>$x > b$</p>	 <p>$x > a$</p>
 <p>$x < a \quad x < b$</p>	 <p>$x < a$</p>	 <p>$x < b$</p>
 <p>$x \leq c \quad x \geq c$</p>	\emptyset	 <p>$x \neq c$</p>

Solving combined inequalities

- 1) solve each independently
- 2) graph both solutions
- 3) interpret results and draw final graph

$$-(k-1) > 4 \quad \text{and} \quad -(1-k) < 4$$

$$\begin{array}{r} -k+1 > 4 \\ -1 \quad -1 \end{array}$$

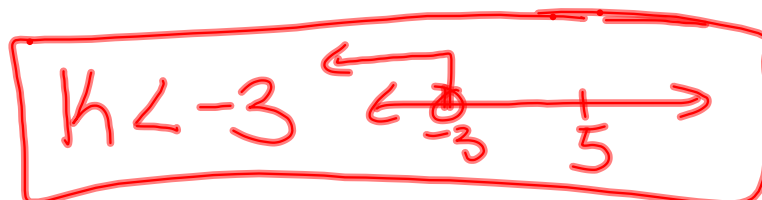
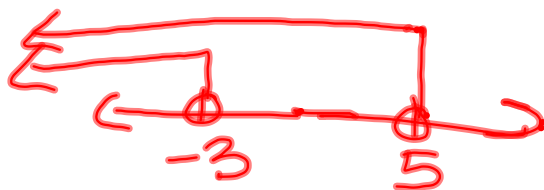
$$\begin{array}{r} -1+k < 4 \\ +1 \quad +1 \end{array}$$

$$\frac{-k > 3}{-1}$$

$$k < 5$$

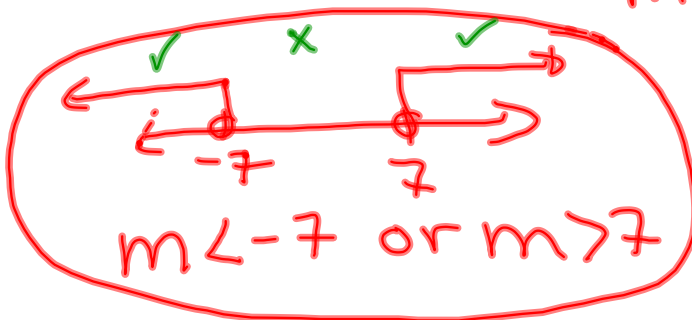
$$k < -3$$

AND



Your turn!

$$\begin{array}{l}
 8+m < 1 \\
 -8 \qquad -8 \\
 m < -7
 \end{array}
 \quad \text{or} \quad
 \begin{array}{l}
 8-m < 1 \\
 -8 \qquad -8 \\
 -m < -7 \\
 \hline
 -1 \\
 m > 7
 \end{array}$$



$$2f + 1 < -9 \quad \text{or} \quad f + 5 \geq 0$$

Homework
P. 67 # 1-8, 13-18