

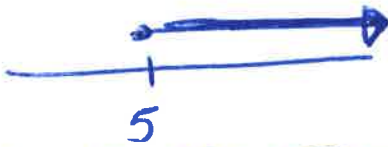
Unit 2 Review

$$1) -3(x-2) \leq -9$$

$$-3x+6 \leq -9$$

$$-3x \leq -15$$

$$x \geq 5$$



$$2) -4 < -2x-8$$

$$\frac{4}{-2} < \frac{-2x}{-2}$$

$$-2 > x$$

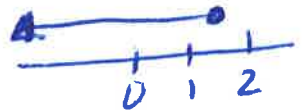
$$x < -2$$



$$3) -5x-3 \geq 2x-11$$

$$-7x \geq -8$$

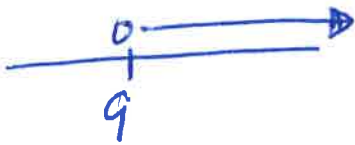
$$x \leq \frac{8}{7}$$



$$4) \frac{x}{3} - 4 > -1$$

$$x - 12 > -3$$

$$x > 9$$



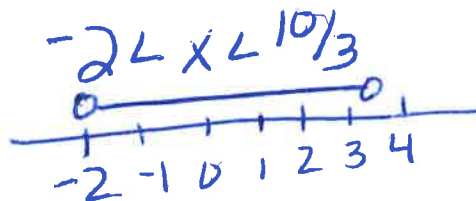
$$5) -7 < 3x-1 < 9$$

$$-7 < 3x-1 \text{ AND } 3x-1 < 9$$

$$-6 < 3x$$

$$3x < 10$$

$$-2 < x \text{ AND } x < \frac{10}{3}$$

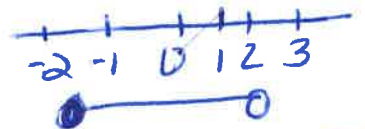


$$6) 2x-1 \geq -4 \text{ AND } x+3 \leq 5$$

$$2x \geq -3$$

$$x \geq -\frac{3}{2} \text{ AND } x \leq 2$$

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



$$7) |x-1| = 4$$

↙ ↘

$$x-1=4 \text{ OR } -x+1=4$$

$$x=5$$

$$-x=3$$

$$x=-3$$

$$\{-3, 5\}$$

$$8) 2|x-3|-1=7$$

$$2|x-3|=8$$

$$|x-3|=4$$

↙ ↘

$$x-3=4 \text{ OR } -x+3=4$$

$$x=7$$

$$-x=1$$

$$x=-1$$

$$\{-1, 7\}$$

$$9) 4-2x \geq -6 \text{ OR } \frac{x}{2} > -1$$

$$-2x \geq -10$$

$$x > -2$$

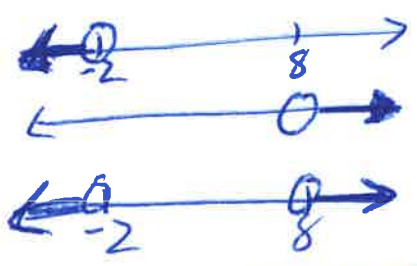
$$x \leq 5 \text{ OR}$$



All Real #

⑩ $|x-3| > 5$

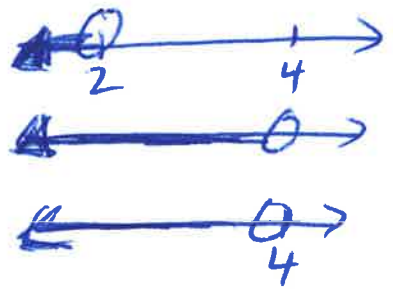
$\swarrow \searrow$
 $-x+3 > 5$ OR $x-3 > 5$
 $-x > 2$ OR $x > 8$
 $x < -2$



$x < -2$ OR $x > 8$

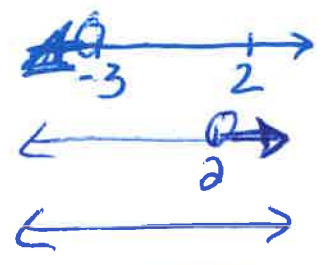
⑪ $-3x > -6$ OR $x+1 < 5$

$\frac{-3x}{-3} > \frac{-6}{-3}$ OR $x+1 < 5$
 $x < 2$ OR $x < 4$



Sol. $x < 4$

⑫ $x > 2$ and $x < -3$



NO Sol

II

⑩ $2(4x-2) + 2(3x+7)$
 $8x-4 + 6x + 14$
 $14x + 10$

⑪ $A = \frac{1}{2}bh$
 $42 = \frac{1}{2}(8)h$
 $42 = 4h$
 $42 = h$
 $\frac{42}{4} = h$
 10.5 cm

⑫ $-11t + 2 = -11t$
 $2 = 0$
 NO Sol

⑬ $\frac{3}{5} = \frac{y+1}{9}$
 $5y+5 = 27$
 $5y = 22$
 $y = \frac{22}{5}$

⑭ $\frac{5n+1}{8} = \frac{3n-5}{4}$
 $4(5n+1) = 8(3n-5)$
 $20n+4 = 24n-40$
 $44 = 4n$
 $11 = n$

⑮ $-4(3-6d) = 9(2d-2)$
 $-12+24d = 18d-18$
 $6d = -6$
 $d = -1$

$$\textcircled{16} 6(4z+2) = 3(8z+4)$$

$$24z + 12 = 24z + 12$$

$\textcircled{\text{IR.}}$

$$\textcircled{17} \frac{p-22}{2} = 6p$$

$$p-22 = 12p$$

$$-22 = 11p$$

$$\textcircled{-2 = p}$$

$$\textcircled{18} 4x + 3y = 18$$

$$3y = -4x + 18$$

$$\textcircled{y = -\frac{4}{3}x + 6}$$