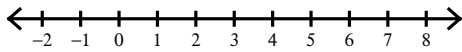


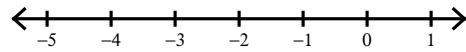
# Solving Inequalities

Solve each inequality and graph its solution.

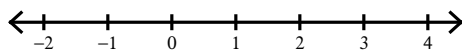
1)  $0 > 3x - 3 - 6$



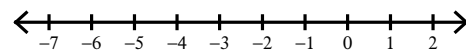
2)  $4x + 1 - 1 \geq -8$



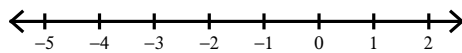
3)  $-1 \leq 2n + 4 - 5$



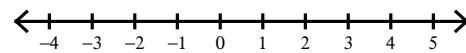
4)  $-6 > 5n + 5 + 4$



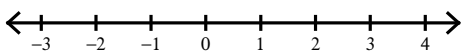
5)  $0 \leq 2n + 3n$



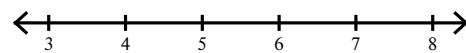
6)  $2p - 4p \leq -2$



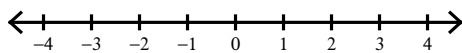
7)  $7 < -(-k - 3) + 2$



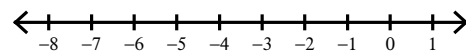
8)  $3 - 2(n - 4) > -1$



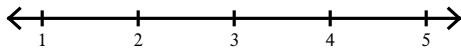
9)  $-5(1 - 4a) > -5$



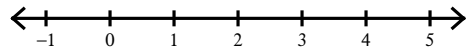
10)  $-2(b + 1) + 4 < 10$



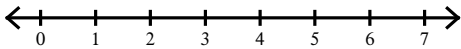
$$11) a - 15 > -4(-6 + 3a)$$



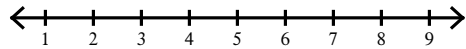
$$12) 3(6b - 1) > 18 - 3b$$



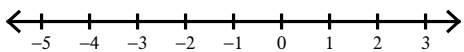
$$13) 26 + m \geq 5(-6 + 3m)$$



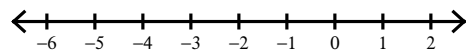
$$14) 20 - 2p > -2(p + 2) + 4p$$



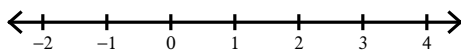
$$15) x + 1 + 1 + 6x > 3(x - 4) - (x - 4)$$



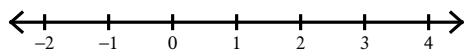
$$16) -6(1 + 6x) < 6(1 - 5x)$$



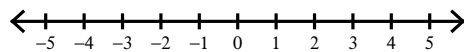
$$17) 2(1 - 4r) < -2(r + 3) - 4$$



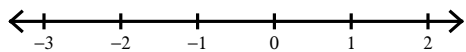
$$18) -6(1 + 2x) \geq 6(2x - 1) + 2x$$



$$19) -2(1 - 5x) > -(x + 1) - 1$$



$$20) 5x - (x + 2) > -5(1 + x) + 3$$



**Critical thinking questions:**

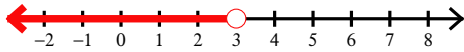
21) Write an inequality with  $x$  on both sides whose solution is  $x \geq 2$

22) Name one particular solution to question #20.

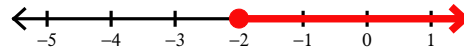
# Solving Inequalities

Solve each inequality and graph its solution.

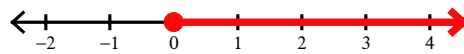
1)  $0 > 3x - 3 - 6$



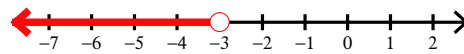
2)  $4x + 1 - 1 \geq -8$



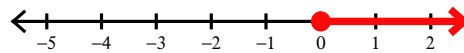
3)  $-1 \leq 2n + 4 - 5$



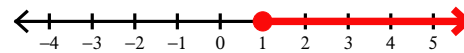
4)  $-6 > 5n + 5 + 4$



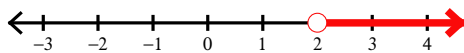
5)  $0 \leq 2n + 3n$



6)  $2p - 4p \leq -2$



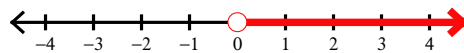
7)  $7 < -(-k - 3) + 2$



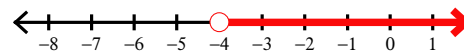
8)  $3 - 2(n - 4) > -1$



9)  $-5(1 - 4a) > -5$



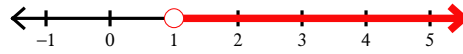
10)  $-2(b + 1) + 4 < 10$



$$11) a - 15 > -4(-6 + 3a)$$



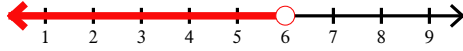
$$12) 3(6b - 1) > 18 - 3b$$



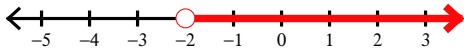
$$13) 26 + m \geq 5(-6 + 3m)$$



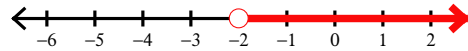
$$14) 20 - 2p > -2(p + 2) + 4p$$



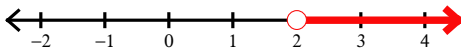
$$15) x + 1 + 1 + 6x > 3(x - 4) - (x - 4)$$



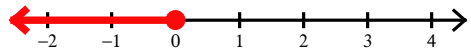
$$16) -6(1 + 6x) < 6(1 - 5x)$$



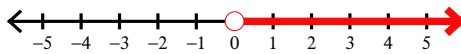
$$17) 2(1 - 4r) < -2(r + 3) - 4$$



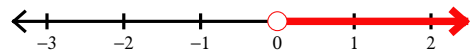
$$18) -6(1 + 2x) \geq 6(2x - 1) + 2x$$



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$$20) 5x - (x + 2) > -5(1 + x) + 3$$



### Critical thinking questions:

21) Write an inequality with  $x$  on both sides whose solution is  $x \geq 2$

Many answers. Ex:  $2x \geq x + 2$

22) Name one particular solution to question #20.

Any number greater than zero. Ex: 4.7