Name key Date_____

1.6 – ABSOLUTE VALUE INEQUALITIES

ALG 2 TRIG G NOTES

Solving and graphing absolute value inequalities: NO NEED TO CHECK!

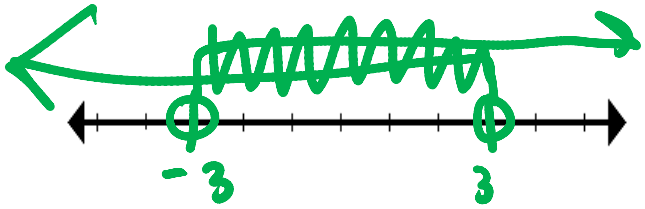
1. Solve $|x| < 3$

CASE 1

$x < 3$

CASE 2

$x > -3$



2. Solve $|3x - 3| > 9$

CASE 1

$3x - 3 > 9$

$3x > 12$

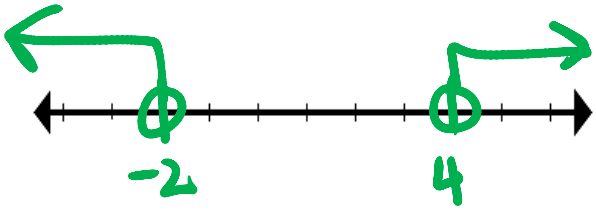
$x > 4$

CASE 2

$3x - 3 < -9$

$3x < -6$

$x < -2$



3. Solve $|2x-1|<5$

CASE 1

$2x-1<5$

$2x<6$

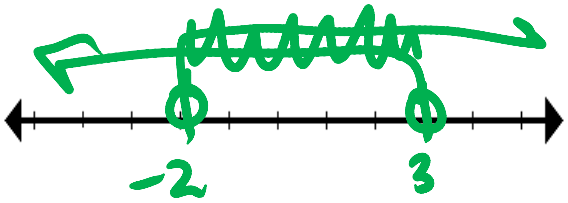
$x<3$

CASE 2

$2x-1>-5$

$2x>-4$

$x>-2$



4. Solve $|4x|+1>27$

$|4x|>26$

CASE 1

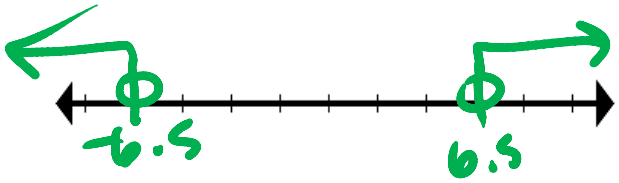
$4x>26$

$x>6.5$

CASE 2

$4x<-26$

$x<-6.5$



5. Solve $|5x+2|<28$

CASE 1

$5x+2<28$

$5x<26$

$x<5.2$

CASE 2

$5x+2>-28$

$5x>-30$

$x>-6$