Grab a chromebook and leave it **CLOSED** on your desk.

Have out your worksheets.

$7 - 5b < -8$

$-7 \quad -7$

$-5b < -15$

$\frac{-5b}{-5} < \frac{-15}{-5}$

$b > 3$

$b < -1$ or $b > 3$

7) $-33 \leq -7n - 12 < -26$

$-33 \leq -7n - 12$ and $-7n - 12 < -26$

$+12 \quad +12$ $\quad +12 \quad +12$

$-21 \leq -7n$ $\quad -7n < -14$

$\frac{-21}{-7} \leq \frac{-7n}{-7}$ $\quad \frac{-7n}{-7} < \frac{-14}{-7}$

$3 \geq n$ AND $n > 2$

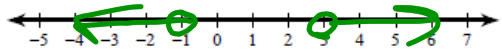
$2 < n \leq 3$

$-33 \leq -7n - 12 < -26$

$+12 \quad +12 \quad +12$

$-21 \leq -7n < -14$

8) $9 + 2b < 7$ or $7 - 5b < -8$



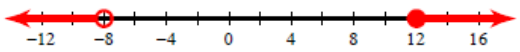
$9 + 2b < 7$

$-9 \quad -9$

$\frac{2b}{2} < \frac{-2}{2}$

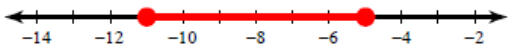
$b < -1$

11) $-5b - 8 \leq -68$ or $11b - 12 < -100$



$b \geq 12$ or $b < -8$

12) $36 \leq 11 - 5x \leq 66$



$-11 \leq x \leq -5$

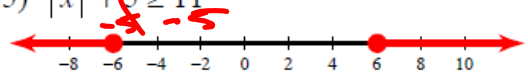
13) $-10 - 2v < 6$ and $6v + 12 < -6$

$-8 < v < -3$

14) $2x - 3 < 11$ or $-8x - 10 < -82$

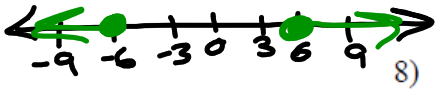
$x < 7$ or $x > 9$

5) $|x| + 5 \geq 11$

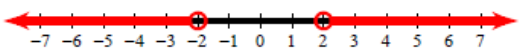


$x \geq 6$ or $x \leq -6$

$|x| \geq 6 \quad x \geq 6$ or $x \leq -6$

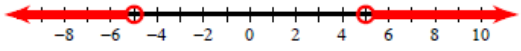


6) $|m| - 2 > 0$



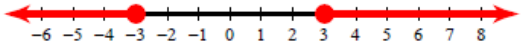
$m > 2$ or $m < -2$

7) $|r| - 3 > 2$



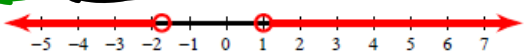
$r > 5$ or $r < -5$

8) $|n| + 2 \geq 5$



$n \geq 3$ or $n \leq -3$

15) $|-8a - 3| > 11$

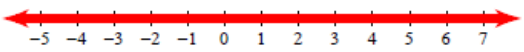


$a < -\frac{7}{4}$ or $a > 1$

$x < -11$ OR $x > 11$

$-8a - 3 < -11 \quad -8a - 3 > 11$

16) $|1 - 4k| \geq -11$



{ All real numbers. }

17) $9|m - 8| - 10 < 26$

$4 < m < 12$

$x > -5$ AND $x < 5$

$|x + 8| < 5$

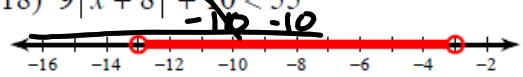
AND

$x + 8 > -5 \quad x + 8 < 5$

$-8 \quad -8 \qquad -8 \quad -8$

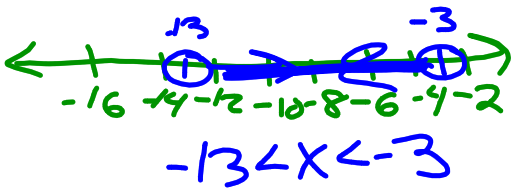
$x > -13$ AND $x < -3$

18) $9|x + 8| + 10 < 55$



$-13 < x < -3$

$\frac{9|x+8|}{9} < \frac{45}{9}$



$-13 < x < -3$

you go from ↘ how many spaces ↘

$|x - (\_\_)| \_\_\_$

AND/OR

$|x - (20)| \geq 5$

at least 5 away from 20

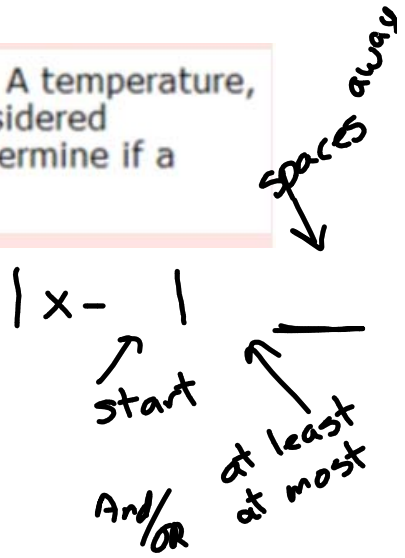
$|x - (-5)| \leq 3$

$|x+5| \leq 3$

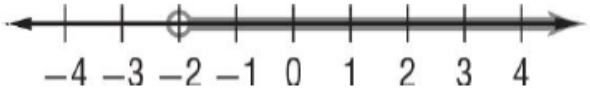
$|x - (\_\_)| \_\_\_$

The "normal" human body temperature is 98.6°F. A temperature, x, that differs from normal by at least 2°F is considered unhealthy. Which inequality could be used to determine if a temperature is unhealthy?

$|x - 98.6| \geq 2$



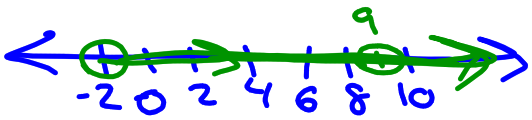
7. $2x - 3 > 15$ or $3 - 7x < 17$ $\{x \mid x > -2\}$



$x > -2$

$2x - 3 > 15$
$+3 \quad +3$
$\frac{2x}{2} > \frac{18}{2}$
$x > 9$ OR

$3 - 7x < 17$
$-3 \quad -3$
$\frac{-7x}{-7} < \frac{14}{-7}$
$x > -2$



17. **RAINFALL** In 90% of the last 30 years, the rainfall at Shell Beach has varied no more than 6.5 inches from its mean value of 24 inches. Write and solve an absolute value inequality to describe the rainfall in the other 10% of the last 30 years. $|r - 24| > 6.5$; $\{r \mid r < 17.5 \text{ or } r > 30.5\}$

≤ 6.5

> 6.5

18. MANUFACTURING A company's guidelines call for each can of soup produced not to vary from its stated volume of 14.5 fluid ounces by more than 0.08 ounces. Write and solve an absolute value inequality to describe acceptable can volumes. $|v - 14.5| \leq 0.08$; $\{v \mid 14.42 \leq v \leq 14.58\}$

$|x - (\ )|$ $(\ \ )$

$|x - 14.5| \leq 0.08$

A clothing designer is selecting models to walk the runway for her fashion show. The designer prefers models that are no more than 3 inches away from being 5'10". Since 5'10" is the same as 70", which inequality could be used to determine if a model's height, x, is within the designer's preferred height range?

Homework

Worksheet on Google Classroom