

Test I actually had 120 points, pre-bonus.
I'm planning to make 110 pts = 100%,
so the $\frac{85}{120}$ or $\frac{132}{120}$ you received will
be figured as $\frac{85}{110}$ or $\frac{132}{110}$.
132?! High score.

Some are really responding to the tools &
slurping up all the videos. Some are relying
on stuff they learned pre-121.
Finally, some seemed to latch on to the
"live" presentations & not much else.

1, 8, 15a are 10-pointers

ONE COLUMN OF WORK
CHECK MY ADDITION

DNF : Does not follow

$$\textcircled{5} \quad 6x^2 - 15x - 156 = 0$$

$$a = 6, b = -15, c = -156$$

$$\Rightarrow b^2 - 4ac = (-15)^2 - 4(6)(-156)$$

$$= 225 + 3744$$

→ DNF

$$-15^2 = -225$$

$$|-2x+3| \leq 7$$

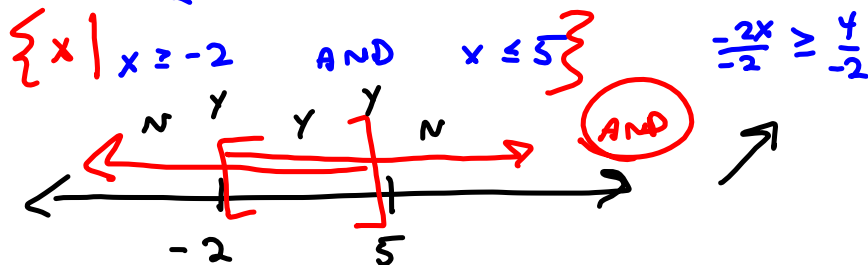
$$-2x+3 \leq 7 \quad \text{AND} \quad -2x+3 \geq -7$$

$$-2x \leq 4$$

$$-2x \geq -10$$

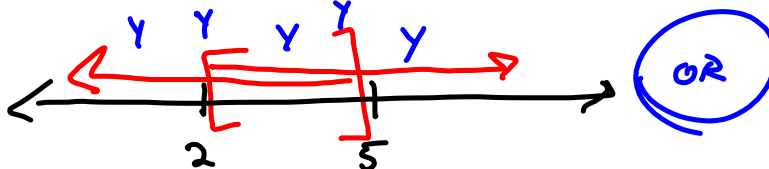
$$x \geq \frac{4}{-2}$$

$$x \leq \frac{-10}{-2}$$



$$= [-2, 5]$$

TOTALLY DIFFERENT IF IT'S "OR"



$$= \{x \mid x \geq -2 \text{ OR } x \leq 5\}$$

$$= (-\infty, \infty)$$

(15c)

$$|3x+5| + 7 > 5$$

$$|3x+5| > -2$$

$(-\infty, \infty)$ Always

$$|x| \geq 0$$

(15d)

$$|-2x+3| + 6 < 3$$

$$|-2x+3| < -3$$

\emptyset Never!

(16)

Let x

Let $x =$ the amt of 44% alcohol (gals)
or
 $x =$ the # of gals of 44% alcohol.

(17)

Let $x =$ the amt of time it takes them
working together to finish the job.

or
 $x =$ the # of hrs to finish, together.

$$\left(\frac{1}{5} \frac{\text{job done}}{\text{hr}}\right)(x \text{ hrs}) + \left(\frac{1}{7} \frac{\text{job}}{\text{hr}}\right)(x \text{ hrs}) = 1 \text{ job done}$$

$$.44x + .75(5) = .6(x+5)$$

$$6x^2 - 15x - 156 = 3(2x^2 - 5x - 52) \stackrel{\text{SET}}{=} 0 \rightarrow$$

$$\begin{array}{r} 2 \overline{) 52} \\ 2 \overline{) 26} \\ \underline{13} \end{array}$$

$$2x^2 - 5x - 52 = 0$$

$$0 \quad (2) \quad (2) \quad (2) \quad (13)$$

ugh!

$$\begin{aligned} 2x^2 + 8x - 13x - 52 &= \\ 2x(x+4) - 13(x+4) &= \\ = (x+4)(2x-13) &= 0 \end{aligned}$$

$$\begin{aligned} x+4 &= 0 & 2x-13 &= 0 \\ x &= -4 & 2x &= 13 \\ x &\in \left\{ -4, \frac{13}{2} \right\} & x &= \frac{13}{2} \end{aligned}$$

$$2x^2 - 5x - 52$$

$$a=2, b=-5, c=-52$$

$$b^2 - 4ac = (-5)^2 - 4(2)(-52)$$

$$= 25 + 416$$

$$= 441 = 21^2$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{5 \pm \sqrt{441}}{2(2)} = \frac{5 \pm 21}{4} \rightarrow \begin{cases} \frac{26}{4} = \frac{13}{2} \\ \frac{-16}{4} = -4 \end{cases}$$

$$x = -4, \frac{13}{2}$$

$$\begin{aligned} 2x^2 - 5x - 52 &= 2(x+4)\left(x - \frac{13}{2}\right) \\ &= (x+4)(2x-13) \end{aligned}$$

$$\begin{array}{r} 1 \overline{) 52} \\ \underline{8} \\ 416 \\ 3 \overline{) 441} \\ \underline{33} \\ 117 \\ 3 \overline{) 117} \\ \underline{9} \\ 27 \\ 7 \overline{) 27} \\ \underline{21} \\ 6 \\ 7 \overline{) 67} \\ \underline{49} \\ 18 \\ 7 \overline{) 18} \\ \underline{14} \\ 4 \end{array}$$

$$\{x \mid x > 2 \text{ and } x \neq 11\}$$

=

= $(2, 11) \cup (11, \infty)$