6.2.23

$$5x-(2x-10)=35$$

$$5x-2x+10=35$$

$$3x+10=35$$

$$-10 \quad -10$$

$$\frac{3x}{3}=\frac{25}{3}$$

$$x=\frac{25}{3}$$

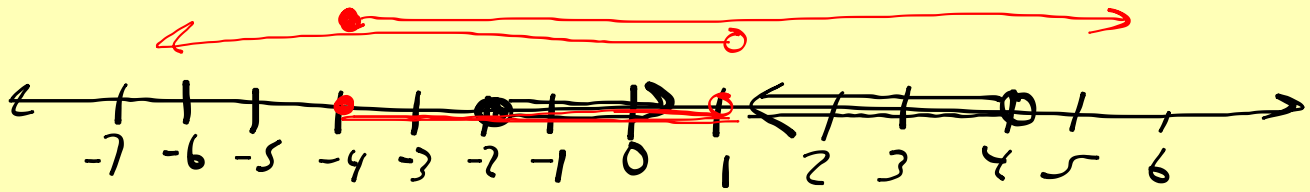
$$x=8.\overline{3}$$

$$3\overline{)25}\ 8\tfrac{1}{3}$$

$$\underline{24}$$

$$1$$

$\{x \mid < a\}$



1a. $\{x \mid x < 4\}$

1b. $\{x \mid x \geq -2\}$

1c. $\{x \mid -4 \leq x < 1\}$

(3) $5x - 3 \leq 17$

$+3 \quad +3$

$5x \leq 20$

$\div 5 \quad \div 5$

$x \leq 4$

(3a) $\frac{1}{4}x < 2 \Rightarrow 4 \cdot \frac{1}{4}x < 2 \cdot 4$

$x < 8$

$\frac{x}{4} < \frac{2}{1}$

$x < 8$

(3b) $-6x < 18$

$x > -3$

$7(-10)-3 > 13(-10)+33$ (−70 > −97)

$7x - 3 > 13x + 33$

$-7x \qquad -7x$

$-3 > 6x + 33$

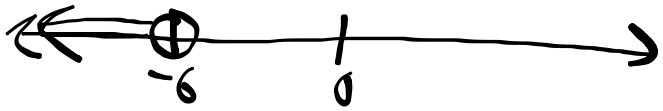
$-33 \qquad -33$

$-36 > 6x$

$\frac{-36}{6} > \frac{6x}{6}$

$-6 > x$

$x < -6$



(5) $2(x-3)-1 \leq 3(x+2)-14$

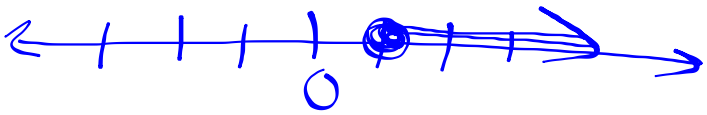
$2x-6-1 \leq 3x+6-14$

$2x-7 \leq 3x-8$

$-2x \quad +8 \qquad -2x \quad +8$

$1 \leq x$

$x \geq 1$



$2\cdot(-3)-1 \leq 3\cdot 2-14$

$-6-1 \leq 6-14$

$-7 \leq -8$ (F)

$$\bar{X} = \frac{\sum X}{n}$$

$$\frac{82+74+78+X+X}{5} \geq 80$$

$$\cancel{5}\cdot\frac{234+2X}{\cancel{5}} \geq 80 \cdot 5$$

$$2X + 234 \geq 400$$
$$-234 \quad -234$$
$$2X \geq 166$$

$$\frac{234+2X}{5} \geq 90$$

$$2X + 234 \geq 90 \cdot 5$$
$$2X + 234 \geq 450$$
$$2X \geq \frac{-234}{216}$$
$$\frac{2}{2}X \geq \frac{166}{2} \qquad X \geq 108$$

$X \geq 83$ percent

C = problems correct

$8C - 5w = 0$

$C + w = 26$

$-C \qquad -C$

$w = 26 - C$

$8C - 5(26 - C) = 0$

$8C - 130 + 5C = 0$

$13C - 130 = 0$

$13C = 130$ $\quad C = 10$

$20 - 3 + 17 - 23$

$20 + (-3) + 17 + (-23)$

$37 + (-26) = 11$

-26

11

$\frac{1}{1} \cdot \frac{2x+5}{x} = \frac{3}{2}$

$\frac{(2)(x+5)}{2} = 3 \cdot 2$

$a = b$

$a \cdot c = b \cdot c$

$\frac{a}{c} = \frac{b}{c}$

$2x+5$

$\frac{2x+10}{2} = 6$

$\frac{x+5}{2} \cdot 2 = 3 \cdot 2$

$x+5 = 6$

$$8x - 17 = x - 2(3x - 7)$$

$$8x + (-17) = x + (-2(3x + (-7)))$$

$$8x + (-17) = x + (-6x + 14)$$

$$8x + (-17) = 1x - 6x + 14$$

$$\boxed{8x + (-17) = -5x + 14}$$

$$5x \quad +17 \qquad +5x \quad +17$$

$$13x + 0 = 0 + 33$$

$$\frac{13x}{13} = \frac{33}{13}$$

$$x = \frac{33}{13}$$