

pg. 135; 3-15 (a) · 25 · 39 (b): 57, 58, 59

③ not linear: exponent of variable is 2, not 1

④ linear

⑤ linear

⑥ not linear: exponent of variable is 2, not 1

⑦ -1

⑧ 13

⑨ -17

⑩ 5

⑪ 4

⑫ 8

⑬ 3

⑭ -13

⑮ -3

⑯ 9

⑰ -5

⑱ 10

⑲ 8

⑳ -4

㉑ 24

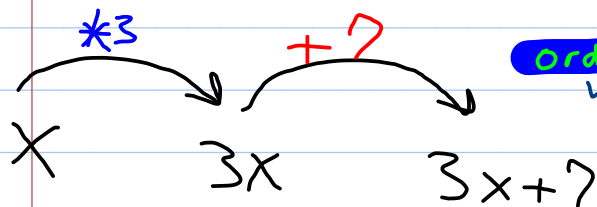
㉒ -15

㉓ -24

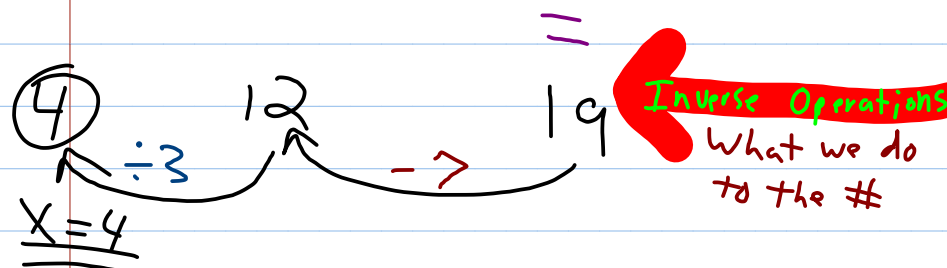
# 3.3. Solving Multi-Step Equations Oct. 11, 2006

ex 1)  $3x + 7 = 19$  \* get 'x' by itself

Script



**Order of operations**  
What we do to 'x'



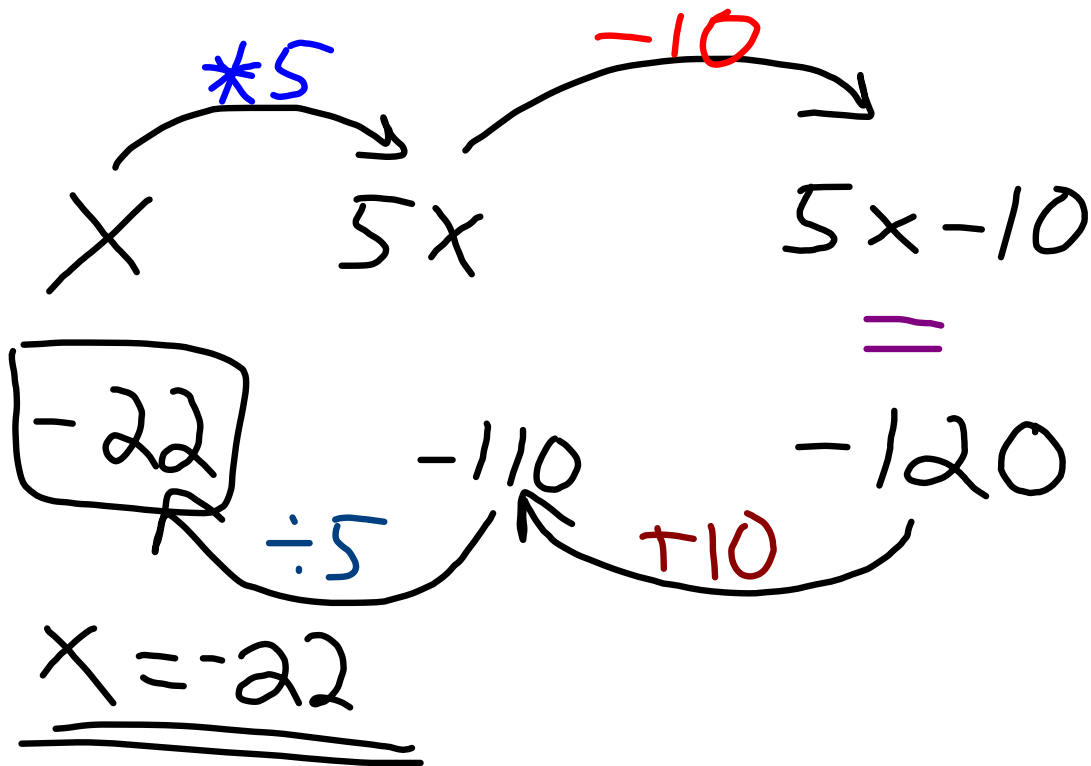
**Inverse Operations**  
What we do to the #

Vertical

$$\begin{array}{r} 3x + 7 = 19 \\ -7 \quad -7 \\ \hline 3x = 12 \\ \underline{\quad 3} \quad \underline{\quad 3} \\ x = 4 \end{array}$$

ex2)  $5x - 10 = -120$

Script



ex2)

Vertical

$$\begin{array}{r} 5x - 10 = -120 \\ \hline \end{array}$$

$$\begin{array}{r} 5x = -110 \\ \hline \end{array}$$

$$\begin{array}{r} x = -22 \\ \hline \hline \end{array}$$

ex 3

$$\underline{7x} - \underline{3x} - 8 = 24$$

$$4x - 8 = 24$$

$$\underline{\quad +8 \quad +8}$$

$$\underline{4x = 32}$$

$$\underline{\quad 4 \quad 4}$$

$$\underline{\underline{x = 8}}$$

Check:

$$7(8) - 3(8) - 8 \stackrel{?}{=} 24$$

$$\underline{56 - 24 - 8 \stackrel{?}{=} 24}$$

$$\underline{32 - 8 \stackrel{?}{=} 24}$$

$$24 = 24 \checkmark$$

ex 4)

$$8x - 2(x + 7) = 16$$
$$8x - 2(x) + -2(7) = 16$$
$$~~8x~~ - 2x - 14 = 16$$

$$6x - 14 = 16$$

$$\frac{+14 \quad +14}{\quad}$$

$$\frac{6x = 30}{6}$$

$$x = \underline{\underline{5}}$$

$$\text{ex 5)} \quad 4 = \frac{2}{3}(x+3)$$

$$4 = \frac{2}{3}(x) + \frac{2}{3}(3)$$

$$4 = \frac{2}{3}x + 2$$

$$\begin{array}{r} -2 \\ \hline \frac{3}{2} \cdot 2 = \frac{3}{2} \left( \frac{2}{3}x \right) \end{array}$$

$$\underline{\underline{3 = x}}$$

$$\frac{3 \cdot 4}{1 \cdot 2} = \frac{3}{2} \left( \frac{2}{3} (x+3) \right)$$



$$\begin{array}{r} 6 = x + 3 \\ -3 \quad -3 \\ \hline \underline{3 = x} \end{array}$$



## Real Life Math:

- There is going to be a concert in Cleveland.
- Gund Arena: 26,247 people
- CSU: 21,650 people.

\* How many more seats have to be added to CSU to have as many seats as Gund?

$$x + \text{CSU} = \text{Gund}$$

$$\begin{array}{r} x + 21650 = 26247 \\ - 21650 \quad - 21650 \\ \hline x = 4597 \end{array}$$

O.T.L.

① pg 133: Checkpoint

Do 1-6 (a) → To be turned

in tomorrow

② Turn in <sup>pg 130</sup> Ch. Readiness Quiz <sup>Friday</sup>

Do ~~Today~~ Tomorrow also

③ Turn in activity on pg 131  
~~Today~~ Tomorrow

HW ✓ ④ pg 147-148:

19-43 (odd)

\* <sup>Hint.</sup> use ex. 2 on pg 145 to  
help with #43

⑤ pg 135: 26-38 (even)

⑥ pg 141-142: 18-48 (even)

will be checked & collected