

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

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

Script

$x \xrightarrow{*3} 3x \xrightarrow{+7} 3x+7$

Order of Operations

What we do to 'x'

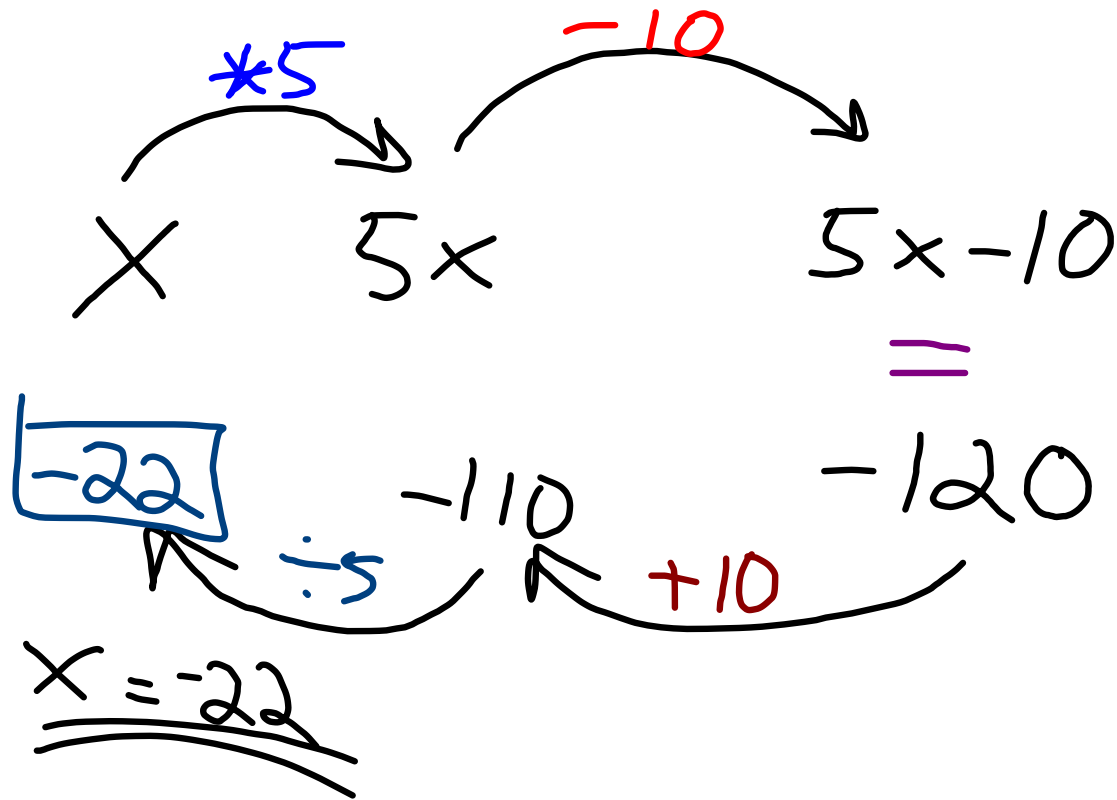
$4 \xrightarrow{\div 3} 12 \xrightarrow{-7} 19$

Inverse Operations
What we do to the #

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

ex2) $5x - 10 = -120$

Script



ex2)

Vertical

$$5x - 10 = -120$$

+10

+10

$$5x = -110$$

5

5

$$x = -22$$

ex 3

$$7x - 3x - 8 = 24$$

$$4x - 8 = 24$$

$$+ 8 \quad + 8$$

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

$$x = 8$$

Check:

$$7(8) - 3(8) - 8 = 24$$

$$56 - 24 - 8 = 24$$

$$32 - 8 = 24$$

$$24 = 24 \checkmark$$

ex 4)

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

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

$$\underline{8x} - \underline{2x} - 14 = 16$$

$$6x - 14 = 16$$

$$+14 \quad +14$$

$$\hline 6x = 30$$

$$\underline{\quad 6} \quad \underline{\quad 6}$$

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

ex 5

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

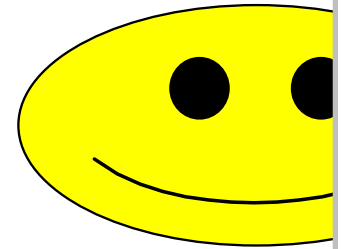
$$4 = \frac{2}{3}(x) + \frac{2}{3}(\cancel{3})$$

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

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

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

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



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

$$2(x+3)$$

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 ^{pg 130} Ch. Readiness Quiz ^{Friday}

Do ~~Today~~ Tomorrow also

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

HW ✓ ④ pg 147-148:

19-43 (odd)

* ^{Hint.} 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