MB 6.3 Solving Equations using Fractions (Division)

Name _____

Blk _____

Review

Identify terms in Expressions or Equations

↳ Term R separated by +/-/= signs

Ex $6x - 4 = 26$ → $26 = -4 + 6x$

Terms

Solving for X

$-4 = 26 - 6x$

$-26 \quad -26$

$-30 = -6x$

$\div -6 \quad \div -6$

$+5 = x$

or

$-4 = 26 - 6x$

$-26 \quad +26$

$-26 - 4 = -6x$

$-30 = -6x$

$\div -6 \quad \div -6$

$5 = x$

CHECK

$-4 = 26 - 6(5)$

$-4 = 26 - 30$

$-4 = -4$ ✓

New

* The 'line' in a fraction means divide! *

Ex 1 Grandpa has enough gift cards to give an equal # to each of his 4 grandchildren. Grandpa gave every child 5 gift cards; how many did he start with?

1) Let x = starting # g.c.

$\frac{4}{1} \cdot \frac{x}{4} = 5 \cdot 4$

$\frac{4x}{4} = 20$

$x = 20$

$\frac{20}{4} = 5$

$5 = 5$ ✓

2) start w/ +/- terms
3) next */÷ terms
4) check!

Grandpa had 20 cards

Ex 2: Bob bought a box of 40 shirts. He added $6 to the cost of each shirt, and sold each shirt for $26. How much did the box of 40 shirts cost?

1) Let x = cost of box

2) $\frac{x}{40} = \$26 - \$6 \rightarrow \frac{x}{40} = 20$

$\frac{800}{40} = 20$

$20 = 20$ ✓

$\frac{40}{1} \cdot \frac{x}{40} = 20 \cdot 40 \rightarrow \boxed{x = 800}$

1) +/- none
2) ×/÷
3) check!

Ex 3: $3 + \frac{n}{7} = 18$

$-3 \quad -3$

$\frac{n}{7} = 15 \cdot 7$

$70 + 35$

$\boxed{n = 105}$

1) circle terms
2) +/- terms
3) ×/÷ terms
4) check!

$3 + \frac{(105)}{7} = 18$

$3 + 15 = 18$

$\boxed{18 = 18}$ ✓

+3 | -3

or $3 + \frac{n}{7} = 18$

$\frac{n}{7} = 18 - 3$

$7 \cdot \frac{n}{7} = 15 \cdot 7$

$\boxed{n = 105}$

HW:

A	B	C
3,4,7	8,9,10	12,14

Solve and check