Reteaching Page
5.10 Solving Fraction Equations

The Steps:

1. Use inverse operations to isolate the variable.

2. Use substitution to check your work

$$n + 3\tfrac{1}{2} = 7\tfrac{2}{3} \qquad\qquad 5\tfrac{3}{8} = n - 2\tfrac{5}{6}$$

isolate the variable	get rid of 3 $\tfrac{1}{2}$ by subtracting	isolate the variable	get rid of 2 $\tfrac{5}{6}$ by adding
	$n = 7\tfrac{2}{3} - 3\tfrac{1}{2}$		$5\tfrac{3}{8} + 2\tfrac{5}{6} = n$
	$n = 4\tfrac{1}{6}$		$8\tfrac{5}{24} = n$
Substitute.	$4\tfrac{1}{6} + 3\tfrac{1}{2} = 7\tfrac{2}{3}$	Substitute.	$5\tfrac{3}{8} = 8\tfrac{5}{24} - 2\tfrac{5}{6}$
.	$7\tfrac{2}{3} = 7\tfrac{2}{3}$	.	$5\tfrac{3}{8} = 5\tfrac{3}{8}$
	$n = 4\tfrac{1}{6}$		$n = 8\tfrac{5}{24}$

When you have to subtract a variable – use the fact family!

$$6\tfrac{3}{4} - n = 2\tfrac{1}{2}$$

You know:

$A + B = C$

$B + A = C$

$C – B = A$

$C – A = B$

This equation would be $C – B = A$ or $C – A = B$ → either way you look at it $6\tfrac{3}{4}$ is the C term.

So you can switch this equation to its fact family member; $A + B = C$

$2\tfrac{1}{2} + n = 6\tfrac{3}{4}$

isolate the variable   get rid of 2 $\tfrac{1}{2}$ by subtracting

$$n = 6\tfrac{3}{4} - 2\tfrac{1}{2}$$

$$n = 4\tfrac{1}{4}$$

Substitute. $6\tfrac{3}{4} - 4\tfrac{1}{4} = 2\tfrac{1}{2}$

$$2\tfrac{1}{2} = 2\tfrac{1}{2}$$