4.7 Solving Equations with Fractions

Recall from chapters 2 and 3:

For any real numbers a , b , and c		
Addition Property of Equality	if $a = b$, then $a + c = b + c$	
Subtraction Property of Equality	if $a = b$, then $a - c = b - c$	
Division Property of Equality	if $a = b$ and $c \neq 0$, then $\frac{a}{c} = \frac{b}{c}$	

Demonstration Problems	Practice Problems
Add and simplify, if possible.	Solve.
1. (a) $y + \frac{11}{12} = \frac{5}{12}$	1. (b) $y + \frac{9}{16} = \frac{5}{16}$
	Answers: 1. (b) $-\frac{1}{4}$

Demonstration Problems	Practice Problems
Solve. 2. (a) $a - \frac{3}{5} = -\frac{8}{5}$	Solve. 2. (b) $a - \frac{5}{9} = -\frac{8}{9}$
3. (a) $12u = -76$	3. (b) 10 <i>m</i> = 44
	Answers: 2. (b) $a = -\frac{1}{3}$; 3. (b) $m = \frac{22}{5}$

For any real numbers a , b , and c		
Multiplication Property of Equality	if $a = b$, then $ac = bc$	

Demonstration Problems	Practice Problems
Solve.	Solve.
4. (a) $\frac{w}{5} = -25$	4. (b) $\frac{x}{7} = -9$
5. (a) $\frac{c}{-7} = -35$	5. (b) $\frac{h}{-8} = -40$
	Answers. 4. (b) $x = -0.5$, 5. (b) $n = 520$