## **2.7** Decimal Operations and Equations with Decimals

**Goal:** Solve equations involving decimals.

Example 1 Adding and Subtracting Decimals		
<b>a.</b> Find the sum $-1.7 + (-3.4)$ .		
Use the rule for adding numbers with the same sign. Add		
and Both o	lecimals are , so the	
sum is		
-1.7 + (-3.4) =		
<b>b.</b> Find the difference -21.29 -	· (-34.62).	
First rewrite the difference as a sum: $-21.29 + 34.62$ . Then		
use the rule for adding numbers with different signs. Subtract		
has the same sign as .		
-21.29 - (-34.62) =		
Checkpoint Find the sum or difference.		
<b>1.</b> -2.8 + (-5.9)	<b>2.</b> 7.12 - (-3.46)	



## Checkpoint Find the product or quotient.

<b>3.</b> -2.8(-5.9)	<b>4.</b> 7.093 ÷ (−3.46)

Example 3	Solving Addition and Subtraction Equations	
Solve the eq	uation.	
<b>a.</b> <i>x</i> + 6.3 =	= 4.8	<b>b.</b> $y - 5.74 = -3.51$
Solution		
a. x	x + 6.3 = 4.8	Write original equation.
x + 6.3 -	= 4.8	Subtract from each side.
	x =	Simplify.
b.	y - 5.74 = -3.51	Write original equation.
y – 5.74	+ = -3.51 +	Add to each side.
	y =	Simplify.

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**Checkpoint** Solve the equation. Check your solution.

<b>5.</b> $x + 5.6 = 9.4$	<b>6.</b> $-3.5 = y + 1.2$	<b>7.</b> $m - 5.3 = -7.2$



Checkpoint Solve the equation. Check your solution.

<b>8.</b> $6x = -43.2$	<b>9.</b> $\frac{y}{-3.1} = -8.4$