Operations with Integers

- **1.1** Integers and Absolute Value
- **1.2 Adding Integers**
- **1.3 Subtracting Integers**
- **1.4 Multiplying Integers**
- **1.5 Dividing Integers**
- **1.6 The Coordinate Plane**



"Look, subtraction is not that difficult. Imagine that you have five squeaky mouse toys."



"After your friend Fluffy comes over for a visit, you notice that one of the squeaky toys is missing."



"Now, you go over to Flutfy's and retrieve the missing squeaky mouse toy. It's easy."



"Dear Sir: You asked me to 'find' the opposite of –1."



"I didn't know it was missing."

What You **Learned Before**

Ordering Integers

Example 1 Order 0, -1, 2, 5, and -6 from least to greatest.



Try It Yourself

Order the integers from least to greatest.

1. -10, 15, 4, -2, -12

2. 7, -5, 3, -3, 1

Plotting Points

Example 2 Plot the point (2, 3).

•					
	(2,	3)			
		3			
	2				
)	1 2	2 3	3 4	1 5	5 x



Pass me my kitten mittens

"I liked it because it is the

opposite of the freezing point on the Fahrenheit temperature scale."



The ordered pair (4, 1) corresponds to Point Q.

Try It Yourself

Use the graph in Example 3 to write an ordered pair corresponding to the point.

3. Point *S* **4.** Point *T* **5.** Point *U* **6.** Point *R*

Using Order of Operations

Example	4 Evaluate $6^2 \div 4 - 2(9 - 5)$.		
First:	Parentheses	$6^2 \div 4 - 2(9 - 5)$	$= 6^2 \div 4 - 2 \cdot 4$
Second:	Exponents		$= 36 \div 4 - 2 \bullet 4$
Third:	Multiplication and Division (from left	to right)	= 9 - 8
Fourth:	Addition and Subtraction (from left to	o right)	= 1

Try It Yourself

Evaluate the expression.

7. $15\left(\frac{8}{4}\right) + 2^2 - 3 \cdot 7$ **8.** $5^2 \cdot 2 \div 10 + 3 \cdot 2 - 1$ **9.** $3^2 - 1 + 2(4(3+2))$