

## Lesson 3: Practice Problems

1. Decide whether or not each equation represents a proportional relationship.
  - a. Volume measured in cups ( $c$ ) vs. the same volume measured in ounces ( $z$ ):  
 $c = \frac{1}{8}z$
  - b. Area of a square ( $A$ ) vs. the side length of the square ( $s$ ):  $A = s^2$
  - c. Perimeter of an equilateral triangle ( $P$ ) vs. the side length of the triangle ( $s$ ):  
 $3s = P$
  - d. Length ( $L$ ) vs. width ( $w$ ) for a rectangle whose area is 60 square units:  $L = \frac{60}{w}$
  
2.
  - a. Clare has \$54 in her bank account. A store credits her account with a \$10 refund. How much does she now have in the bank?
  - b. Mai owes the bank \$60. She gets \$85 for her birthday and deposits it into her account. How much does she now have in the bank?
  - c. Tyler is overdrawn at the bank by \$180. His brother has \$70 more than him. How much money does Tyler's brother have?
  - d. Andre has \$37 in his bank account and writes a check for \$87. After the check has been cashed, what will the bank balance show?

3. Last week, it rained  $x$  inches. This week, the amount of rain decreased by 5%. Which expressions represent the amount of rain that fell this week? Select all that apply.

A.  $g - 0.05$     B.  $g - 0.05g$     C.  $0.95g$     D.  $0.05g$     E.  $(1 - 0.05)g$

4. The table shows five transactions and the resulting account balance in a bank account, except some numbers are missing. Fill in the missing numbers.

	transaction amount	account balance
transaction 1	200	200
transaction 2	-147	53
transaction 3	90	
transaction 4	-229	
transaction 5		0

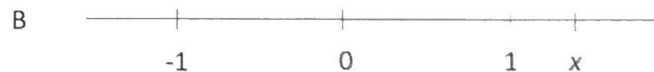
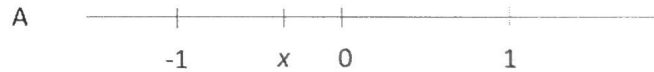
5. Add.

a.  $5\frac{3}{4} + (-\frac{1}{4})$

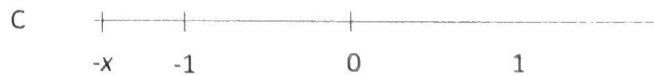
b.  $-\frac{2}{3} + \frac{1}{6}$

c.  $-\frac{8}{5} + (-\frac{3}{4})$

6. In each diagram,  $x$  represents a different value. For each diagram,



- i. What is something that is definitely true about the value of  $x$ ?



- ii. What is something that could be true about the value of  $x$ ?

