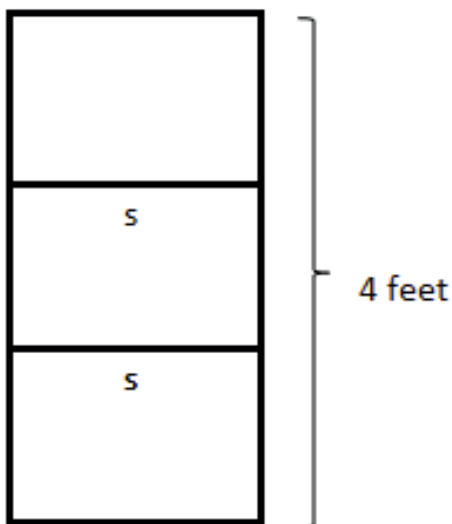Name _____ Date _____

Lesson 17: Comparing Tape Diagram Solutions to Algebraic Solutions

Exit Ticket

1. Eric's father works two part-time jobs, one in the morning and one in the afternoon, and works a total of 40 hours each 5-day workweek. If his schedule is the same each day, and he works 3 hours each morning, how many hours does Eric's father work each afternoon?

2. Henry is using a total of 16 ft. of lumber to make a bookcase. The left and right sides of the bookcase are each 4 ft. high. The top, bottom, and two shelves are all the same length, labeled S. How long is each shelf?

Name _____ Date _____

Lesson 18: Writing, Evaluating, and Finding Equivalent Expressions with Rational Numbers

Exit Ticket

Bradley and Louie are roommates at college. At the beginning of the semester, they each paid a security deposit of A dollars. When they move out, their landlord will deduct from this deposit any expenses (B) for excessive wear and tear and refund the remaining amount. Bradley and Louie will share the expenses equally.

- Write an expression that describes the amount each roommate will receive from the landlord when the lease expires.

- Evaluate the expression using the following information: Each roommate paid a $125 deposit, and the landlord deducted $50 total for damages.

Name _____   Date _____

Lesson 19: Writing, Evaluating, and Finding Equivalent Expressions with Rational Numbers

Exit Ticket

1. Write three equivalent expressions that can be used to find the final price of an item costing g dollars that is on sale for 15% off and charged 7% sales tax.

2. Using all of the expressions, determine the final price for an item that costs $75. If necessary, round to the nearest penny.

3. If each expression yields the same final sale price, is there anything to be gained by using one over the other?

4. Describe the benefits, special characteristics, and properties of each expression.

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Name _____ Date _____

Lesson 20: Investments—Performing Operations with Rational Numbers

Exit Ticket

1. Using the incomplete register below, work forward and backward to determine the beginning and ending balances after the series of transactions listed.

DATE	DESCRIPTION OF TRANSACTION	PAYMENT	DEPOSIT	BALANCE
	Beginning Balance	---	---	
1/31/12	Paycheck		350.55	
2/1/2012	Gillian's Chocolate Factory (Candy)	32.40		685.26
2/4/12	Main Street Jeweler's	425.30		
2/14/12	Saratoga Steakhouse	125.31		

2. Write an expression to represent the balance after the paycheck was deposited on 1/31/12. Let x represent the beginning balance.

3. Write a numerical expression to represent the balance after the transaction for Main Street Jeweler's was made.

Name _____   Date _____

Lesson 21: If–Then Moves with Integer Number Cards

Exit Ticket

Compare the two expressions: Expression 1: $6 + 7 + -5$

Expression 2: $-5 + 10 + 3$

1. Are the two expressions equivalent? How do you know?

2. Subtract -5 from each expression. Write the new numerical expression, and write a conclusion as an if–then statement.

3. Add 4 to each expression. Write the new numerical expression, and write a conclusion as an if–then statement.

4. Divide each expression by -2. Write the new numerical expression, and write a conclusion as an if–then statement.

Name _____ Date _____

Lesson 22: Solving Equations Using Algebra

Exit Ticket

Susan and Bonnie are shopping for school clothes. Susan has $50 and a coupon for a $10 discount at a clothing store where each shirt costs $12.

Susan thinks that she can buy three shirts, but Bonnie says that Susan can buy five shirts. The equations they used to model the problem are listed below. Solve each equation algebraically, justify your steps, and determine who is correct and why.

<table>
<tr><td align="center">Susan's Equation</td><td align="center">Bonnie's Equation</td></tr>
<tr><td align="center">$12n + 10 = 50$</td><td align="center">$12n - 10 = 50$</td></tr>
</table>

Name _____   Date _____

Lesson 23: Solving Equations Using Algebra

Exit Ticket

Andrew's math teacher entered the seventh-grade students in a math competition. There was an enrollment fee of $30 and also an $11 charge for each packet of 10 tests. The total cost was $151. How many tests were purchased?

Set up an equation to model this situation, solve it using if-then statements, and justify the reasons for each step in your solution.