lesson nineteen - student resource sheet

Lesson Objective: Subtract several integers.

Vocabulary Box

associative property of addition — The sum of more than two numbers does not depend on how the numbers are grouped: (a + b) + c = a + (b + c).
Example: 2 + (5 + 4) = (2 + 5) + 4.

commutative property of addition — Two or more numbers may be added in any order: a + b = b + a. Example: 4 + 5 = 5 + 4.

Independent Practice

Directions: Complete the following practice problems on your own. Your teacher will review the answers. Make sure you show all your work.

I. Tell whether each statement is true or false.

1. 2 + 3 + (–4) = 3 + (–4) + 2 _____

2. (10 – 4 + 3) + (–6) = 10 + (4 + 3 – 6) _____

3. (4 + 6) + 3 = 3 + (4 + 6) _____

4. 5 – (–6) = 5 + (–6) _____

II. Solve each problem and check your answers by rewriting and solving.

1. 15 – (–4) – 24 – 4 – 16 = _____

2. 45 – 100 – 97 – (–20) = _____

3. 12 – 14 – (–85) – (–14) – 12 = _____

4. –15 – (–45) – (–9) – (–15) – (–3) – 45 = _____

5. –721 – 231 – (–447) = _____

6. 78 – 41 – (–63) – 5 – (–13) – 63 = _____

Fill in the blanks to make each statement true.

1. –8 – (–2) – _____ – 3 – (–5) = 10

2. 12 – _____ – (–6) – 10 – (–10) – 6 = 0

Problem Solving

Read the following statements about transactions you make to your bank account. You need to record the transactions and determine how much money you have left in your account at the end of the week.

On Monday, you check your balance, and you have $45 in your account. You write a check to the phone company for $30.

On Tuesday, you use your debit card to purchase a DVD for $19, and you deposit a check from your last baby-sitting job for $20.

On Wednesday, you buy a sweater for $26 and a sandwich for $3.

On Thursday, you deposit another baby-sitting check for $35.

On Friday, you spend $20 on a movie and snacks at the theater.

1. Write a number sentence to show all of the transactions for your account this week.

2. If you check your balance on Saturday, what should it be? Write your answer in a complete sentence.

3. On which days (if any) did you have a negative balance? What was the balance? Note: This is really important because most banks charge a large fee if your balance dips below zero. Write your answer in a complete sentence.

4. Write your own question about a bank account that begins with a negative balance. Include at least three transactions in which you add or subtract money from the account.

1. Which property allows you to change the order of the numbers in an addition problem?

2. –17 – 13 – (–17) –21 = _____

3. –200 – (–300) – 45 – 73 = _____

lesson twenty - student resource sheet

Lesson Objective: Solve whole-number equations.

Vocabulary Box

equation — A mathematical statement with an equal sign between two expressions that have the same value. Example: $3+4=7$; $2x+5=19$.

inverse operations — Two operations that have the opposite effect. Example: Addition and subtraction are inverse operations.

variable — A letter used to represent one or more numbers in an expression or an equation. Example: The variable *x* could represent many different numbers in the expression $2x+5$.

Guided Practice

Directions: Complete the following practice problems. Your teacher will review the answers. Make sure you show all your work.

I. Work with a partner to solve each equation. Make sure you check your solutions.

1. $x+4=9$ x = _____

2. $\frac{m}{6}=9$ m = _____

3. $4p=40$ p = _____

4. $w - 3 = 0$ w = _____

5. $10n = 150$ n = _____

II. Solve each equation and check your solutions. Please work on your own.

1. $6b = 102$ b = _____

2. $\frac{g}{12} = 9$ g = _____

3. $h + 134 = 275$ h = _____

Summary/Closure

A. Vocabulary Words

Use each vocabulary term from today's lesson to write an explanation of how to solve equations.

B. Summarize What We Learned Today

Solve the problem below, and explain how you solved it, step-by-step.

$5v = 390$ v = _____

lesson twenty-one - student resource sheet

Lesson Objective: Solve whole-number equations.

Vocabulary Box

equation — A mathematical statement with an equal sign between two expressions that have the same value. Example: $3+4=7$; $2x+5=19$.

inverse operations — Two operations that have the opposite effect. Example: Addition and subtraction are inverse operations.

variable — A letter used to represent one or more numbers in an expression or an equation. Example: The variable *x* could represent many different numbers in the expression $2x+5$.

Independent Practice

Directions: Complete the following practice problems on your own. Your teacher will review the answers. Make sure you show all your work.

I. Write the name of the operation you would use to solve the equation. You do not need to solve it.

1. $y+6=16$ _____

2. $17x=53$ _____

3. $\frac{z}{16}=84$ _____

4. $n-65=91$ _____

II. Solve each equation. Show your work and check your answers.

1. $7b = 56$ _____

2. $r + 17 = 42$ _____

3. $\frac{v}{9} = 4$ _____

4. $y + 621 = 983$ _____

5. $\frac{f}{13} = 51$ _____

6. $27p = 1836$ _____

lesson twenty-one - student resource sheet

Solve each equation.

1. $t + 47 = 18$

2. $x - 19 = -36$

3. p + 23 – 14 = 36

Problem Solving

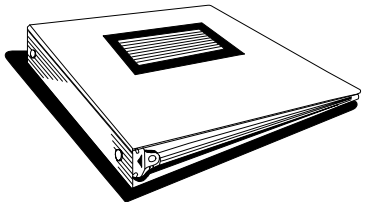
You are in charge of buying school supplies to sell at the school store. Answer the questions below, in order to price the items. Write your answer in a complete sentence. Remember that $1.00 equals 100 cents.

1. A package of 20 pencils costs $1.00. How much does each pencil cost?
   $20p = 100$ p = _____

2. You have 17 folders. How many more folders will you need to fill an order of 25 folders?
   $17 + f = 25$ f = _____

3. You need to divide some pens into 5 souvenir mugs. How many pens do you need in order to have 12 pens in each mug?
   $\frac{p}{5} = 12$ p = _____

4. You have some mascot key chains. If you had 5 more, you'd have a total of 87 key chains. How many key chains do you have now? Write an equation and solve it. Then write your answer in a complete sentence.



lesson twenty-one - student resource sheet

1. Name a pair of inverse operations.

   _____ and _____

2. $\frac{j}{5} = 30$ j = _____

3. $n - 19 = 8$ n = _____