lesson twenty-two - student resource sheet

Lesson Objective: You will be able to divide a multi-digit number by a 2-digit number with or without a remainder.

Vocabulary Box

dividend – the number being divided. Example: In 56 ÷ 7, 56 is the dividend.

divisor – the number the dividend is being divided by. Example: In 56 ÷ 7, 7 is the divisor.

remainder – the amount left over after you divide the dividend by the divisor. Example: In 59 ÷ 7 = 8 R3, 3 is the remainder.

Guided Practice

Directions: Please complete the following practice problems with your partner. Your teacher will review the answers. Make sure you show all your work.

I. Use base-ten blocks to model and solve each problem.

1. 172 ÷ 35 = _____

   How many groups of 35 can you make with a total of 172?

   _____

   How much do you have left over after making all of those groups?

   _____

2. 58 ÷ 17 = _____

   How many groups of 17 can you make with a total of 58?

   _____

   How much do you have left over after making all of those groups?

   _____

II. Use place value and regrouping to solve each problem.

1. $28\overline{)346}$

How many groups of 28 can you make with a total of 346?

_____

How much do you have left over after making all of those groups?

_____

2. $14\overline{)1,750}$

How many groups of 14 can you make with a total of 1,750?

_____

How much do you have left over after making all of those groups?

_____

III. Choose a method to solve each problem—Use base-ten block models or use regrouping. Solve the problem. Then use multiplication or multiplication and addition to check your answer.

1. $32\overline{)97}$

2. $18\overline{)1,224}$

Summary/Closure

A. Vocabulary Words

Directions: Use the description of each division to identify each of its parts.

1. A total of 257 can be separated into 15 equal groups, with 17 in each group and 2 left over.
   Dividend = _____
   Divisor = _____
   Quotient = _____
   Remainder = _____
2. When I separate a total of 4,650 into 34 groups, I have 132 in each group and 162 left over.
   Dividend = _____
   Divisor = _____
   Quotient = _____
   Remainder = _____
3. I had 582 flowers. I put 25 flowers in each vase. I filled 23 vases, and I had 7 flowers left over.
   Dividend = _____
   Divisor = _____
   Quotient = _____
   Remainder = _____

B. Summarize What We Learned Today

Write and solve a problem in which you divide a 3-digit number by a 2-digit number. Use words, numbers, and pictures to explain how you solved the problem. Then use multiplication or multiplication and addition to check your answer. Write notes to yourself about how you checked your answer. You will use these notes and explanations as a personal reminder.

lesson twenty-three - student resource sheet

Lesson Objective: Divide a multi-digit number by a two-digit number, with or without a remainder.

Vocabulary Box

dividend — The number being divided. Example: In 56 ÷ 7, 56 is the dividend.

divisor — The number the dividend is being divided by. Example: In 56 ÷ 7, 7 is the divisor.

remainder — The number left over after you divide the dividend by the divisor. Example: In 59 ÷ 7 = 8 R3, 3 is the remainder.

Independent Practice

Directions: Complete the following practice problems on your own. Your teacher will review the answers.

I. Use place value and regrouping to solve each problem.

1. 85 ÷ 13 = _____

   How many groups of 13 can you make with a total of 85? _____

   How much do you have left over after making all of those groups? _____

2. 817 ÷ 19 = _____

   How many groups of 19 can you make with a total of 817? _____

   How much do you have left over after making all of those groups? _____

3. $41\overline{)698}$

   How many groups of 41 can you make with a total of 698? _____

   How much do you have left over after making all of those groups? _____

4. $37\overline{)8,920}$

   How many groups of 37 can you make with a total of 8,920? _____

   How much do you have left over after making all of those groups? _____

II. Use place value and regrouping to solve each problem. Then, use multiplication, or multiplication and addition, to check your answer.

1. $25\overline{)82}$

2. $62\overline{)9,486}$

Directions: Write the division problem and answer that are checked by each of the following.

1. $17 \times 46 + 5 = 787$

2. $12 \times 239 = 2,868$

3. $58 \times 102 + 13 = 5,929$

4. $83 \times 69 + 3 = 5,730$

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Problem Solving

The table below shows how many people signed up to play different sports in the community center league. It also shows how many players are on each team.

Sport	Number of Players	Number of Players on Each Team
Baseball	252	21
Basketball	360	15
Soccer	234	26
Volleyball	312	13

1. How many baseball teams will play in the community center league?

    a. You need to separate the total number of baseball players into equal groups.

    What operation will you use to solve the problem?

    b. Decide how you will divide. Use place value and regrouping.

    c. Check that your answer is correct.

    d. Write your answer in a complete sentence. Use words from the problem.

2. How many volleyball teams will play in the league? Remember to check your answer. Write your answer in a complete sentence.

3. The league is going to form all-star hockey teams. All the basketball players and soccer players will join the all-star hockey teams. There will be a total of 22 players on each team. How many all-star teams will play in the league? Remember to check your answer. Write your answer in a complete sentence.

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1. 937 ÷ 4 = _____

2. 84 ÷ 26 = _____

3. $41\overline{)1{,}599}$

lesson twenty-four - student resource sheet

Lesson Objective: Add and subtract fractions with like denominators, and change improper fractions to mixed numbers.

Vocabulary Box

proper fraction — A fraction with a numerator less than the denominator. It has a value of less than 1. Examples: $\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$, and $\frac{11}{12}$.

improper fraction — A fraction with a numerator greater than or equal to the denominator. It has a value greater than or equal to 1. Examples: $\frac{3}{2}$, $\frac{7}{4}$, $\frac{3}{3}$, and $\frac{8}{8}$.

mixed number — An amount that is given as a whole number, plus a proper fraction. It always has a value greater than 1. Examples: $1\frac{1}{2}$, $3\frac{4}{5}$, $2\frac{1}{3}$, and $1\frac{3}{8}$.

How to Change an Improper Fraction To a Whole Number or Mixed Number

Step 1: Divide the numerator by the denominator. Example: For $\frac{5}{4}$, 5 ÷ 4.

Step 2: Write the quotient as the whole number part of the mixed number. Example: 1.

Step 3: Write the remainder as the fraction part of your mixed number. Use the remainder for the numerator. Use the same denominator that was in the improper fraction.
Example: $\frac{1}{4}$.

Step 4: Write the mixed number in simplest form. Example: $1\frac{1}{4}$.

How to Add and Subtract Fractions With Like Denominators

Step 1: Make sure both fractions in the problem have the same denominator, or like denominators.

Step 2: Add or subtract ONLY the numerators.

Step 3: Use the same denominator that was in both fractions in the problem for the denominator of your sum or difference.

Step 4: Write your sum or difference in simplest form.

Guided Practice

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

I. Write each improper fraction as a whole number or mixed number. Remember to write your answers in simplest form.

1. $\frac{9}{2}$ = _____

2. $\frac{21}{7}$ = _____

3. $\frac{11}{4}$ = _____

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II. Shade each rectangle below to model and solve the problem written below it. Use a different colored pencil for each fraction. Remember to write your answers in simplest form.

1.

$\frac{2}{6} + \frac{3}{6} =$ _____

2.

$\frac{9}{10} - \frac{6}{10} =$ _____

III. Use math to find each sum or difference. Write your answer in simplest form. Please work independently.

1. $\frac{9}{12} + \frac{8}{12} =$ _____

2. $\frac{5}{2} - \frac{1}{2} =$ _____

3. $\frac{7}{8} + \frac{5}{8} =$ _____

Summary/Closure

A. Vocabulary Words

Directions: Draw lines to match each term with the correct definition. Then draw lines from each definition to the correct example. Then draw lines from each example to the correct value.

Word	Definition	Example	Value
proper fraction	an amount that is given with a whole number and a fraction	$\frac{7}{8}$	greater than one
improper fraction	a fraction with a numerator that is less than its denominator	$2\frac{1}{2}$	equal to one
mixed number	a fraction with a numerator that is greater than or equal to its denominator	$\frac{4}{4}$	less than one

B. Summarize What We Learned Today

Write and solve two sample problems. The first problem should be adding two fractions with like denominators. The second problem should be subtracting two fractions with like denominators.

Explain in words or pictures how to add and subtract fractions with like denominators and how to change improper fractions to mixed numbers. You will use this explanation as a personal reminder.