lesson four - student resource sheet

Lesson Objective: Divide a three-digit or four-digit number by a two-digit number.

Vocabulary Box

dividend — The number to be divided in a division problem. Example: In $12 \div 4 = 3$, 12 is the dividend.

divisor — The number that is divided into the dividend. Example: In $12 \div 4 = 3$, 4 is the divisor.

quotient — The result of a division operation. Example: In $12 \div 4 = 3$, 3 is the quotient.

Directions: Complete the exercises on your own.

I. Solve each problem. Be sure to show your work.

1. $15\overline{)945}$

2. $57\overline{)4,731}$

II. Solve each problem. Be sure to show your work.

1. $47\overline{)9,823}$

2. $28\overline{)2,996}$

III. Divide. Be sure to show your work.

1. 4,096 ÷ 64 = _____

2. 6,324 ÷ 31 = _____

Directions: Fill in the blanks of the table below.

Dividend	Divisor	Quotient
936	12	
4,860		90
	91	35

Problem Solving

Customary Units of Measurement

Length	Capacity
12 in. = 1 ft	2 c = 1 pt
3 ft = 1 yd	2 pt = 1 qt
5,280 ft = 1 mi	4 qt = 1 gal

1. How many feet are in 300 inches?

2. How many yards are in a mile?

3. A large tank can hold 7,200 cups of water. How many gallons is this?

4. A container can hold 30 gallons of water. How many times would you have to fill this container and dump it into the tank in problem 3 if you wanted to fill the tank with water?

1. Which is the divisor in $102 \div 2 = 51$?_____

2. $35\overline{)3{,}185}$

3. $30\overline{)6{,}240}$

Lesson Objective: Identify the rules of divisibility by 2, 3, 4, 5, 6, 8, 9, and 10.

Vocabulary Box

factor — One of two or more numbers that are multiplied to get a product.
Example: In 2 x 4 = 8, 2 and 4 are factors of 8.

divisible — When one whole number is divided by a second whole number and the remainder is zero. Example: 8 is divisible by 2, and 8 is divisible by 4.

Guided Practice

Directions: Work through the following problems with your partner.

I. Copy the rules of divisibility into the table below.

A number is divisible by…	If…	Example
2		2,314; even; ends in 4
3		558; 5 + 5 + 8 = 18, which is divisible by 3
4		780,416; ends in 16, which is divisible by 4
5		135; ends in 5
6		24; ends in 4, which is divisible by 2, and 2 + 4 = 6, which is divisible by 3
8		7,800; ends in 800, which is divisible by 8
9		162; 1 + 6 + 2 = 9, which is divisible by 9
10		4,210; ends in zero

II. Tell whether the statement is true or false, then explain why.

_____ 1. 789 is divisible by 2. _____

_____ 2. 459 is divisible by 3. _____

_____ 3. 9,233,981,290 is divisible by 10. _____

_____ 4. 45,088 is divisible by 8. _____

_____ 5. 300 is divisible by 6. _____

Summary/Closure

A. Vocabulary Words

Using the problem 3 x 5 = 15, write a sentence with each vocabulary word.

factor

divisible

B. Summarize What We Learned Today

Tell whether 1,256 is divisible by each of the following numbers.

2 ____ 3_____ 4 _____ 5 _____

6____ 8_____ 9 _____ 10 _____

lesson six - student resource sheet

Lesson Objective: Identify the rules of divisibility by 2, 3, 4, 5, 6, 8, 9, and 10.

Vocabulary Box

factor — One of two or more numbers that are multiplied to get a product.
Example: In 2 x 4 = 8, 2 and 4 are factors of 8.

divisible — When one whole number is divided by a second whole number and the remainder is zero. Example: 8 is divisible by 2, and 8 is divisible by 4.

Independent Practice

Directions: Complete the exercises on your own.

I. For each problem, below, state whether the first number is divisible by the second number, and explain your answer.

1. 780 by 2 _____
2. 894 by 5 _____
3. 9,456,120 by 8 _____
4. 563 by 9 _____

II. Is 495 divisible by:

2 ____ 3 ____ 4 ____ 5 ____

6 ____ 8 ____ 9 ____ 10 ____

III. Place an X in the box if the number in the left column is divisible by each number along the top.

	2	**3**	**4**	**5**	**6**	**8**	**9**	**10**
612								
518,400								

Directions: State whether the following statements are true or false. If they are false, give an example or reason why.

_____1. All numbers divisible by 3 are odd. _____

_____2. All numbers divisible by 8 are even. _____

_____3. All numbers divisible by 9 are odd. _____

_____4. All numbers divisible by 10 are also divisible by 5. _____

Problem Solving

Your teacher asked you to help her organize the school play. Use the rules of divisibility to answer her questions quickly, and explain how you know.

1. The band must sit in rows with the same number of students in each row. If there are 90 students in the band, can we put them in rows of 6?

2. Your teacher decided that each student will get four lines to read. Will I have any lines left over if there are 527 lines that need to be read?

3. The programs can be ordered in bundles of 2, 3, 4, 5, 6, 8, 9, or 10. If we need 180 programs, does it matter which type of bundle we choose? We don't want extras and we can't be short.

4. The stage crew of 30 students needs to be divided into equal teams. How many students can we put on each team?

1. Is 240 divisible by 6?

2. Is 3,698 divisible by 2?

3. Can 162 players be divided equally into teams of 9?