

Lesson: Estimating Quotients

4th Grade Objective: 1.02b Estimation of products and quotients in appropriate situations.

Vocabulary:

Dividend is the number that is being divided. It is usually the larger of the two numbers.

Divisor is the number that we are dividing by. It is usually the smaller number.

Quotient is the answer to a division problem.

Lesson:

Steps:

1. Look at both the **divisor** and **dividend**. Underline the first digits of each number.
2. Check to see if the underlined digits in each number are compatible. If they are not, change the underlined digits in the **dividend** so that they are compatible.
3. Change all of the digits after the underlined numbers in both the **dividend** and **divisor** to zeros.
4. If possible, cross out an equal number of zeros from both the **dividend** and the **divisor**.
5. Divide the new compatible numbers that are underlined.
6. Take any extra zeros from the **dividend** and add them to the **quotient**.

Example:

1.) $2443 \div 50 =$ (the problem)

$\underline{2443} \div \underline{50} =$ (Step #1, underline the first digits of the dividend and the divisor.)

$\underline{2543} \div \underline{50} =$ (Step #2, change the underlined digits of the dividend to make compatible numbers.)

$\underline{2500} \div \underline{50} =$ (Step #3, change the rest of the digits in the dividend to zeros.)

$\underline{250X} \div \underline{5X} =$ (Step #4, If possible, cross out an equal number of zeros from the dividend and the divisor.)

$\underline{250} \div \underline{5} = 5$ (Step #5, divide the underlined digits.)

$\underline{250} \div \underline{5} = 50$ (Step #6, take extra zeros from the dividend and add them to the quotient.)

1.) $4,154 \div 7 =$

2.) $23,587 \div 30 =$

3.) $316 \div 8 =$

4.) $3,578 \div 9 =$

5.) $24,426 \div 50 =$