

Lesson: Division (Enrichment)

4th Grade Objective: 1.02c – Develop fluency with multiplication and division

Vocabulary:

- The answer to a division problem is the quotient.
- The number you are dividing by is the divisor.
- The number you are dividing into is the dividend.
- The number that is left over, if there is one, is the remainder.

Lesson:

Let's see how it is done with:

$$425 \div 25$$

There are two definitions we must make first.

- the number to be divided into is known as the **dividend** (425 from above)
- The number which divides the other number is known as the **divisor** (25 from above)

$\begin{array}{r} 25 \overline{)425} \end{array}$	$4 \div 25 = 0 \text{ remainder } 4$	The first number of the dividend is divided by the divisor .
$\begin{array}{r} 0 \\ 25 \overline{)425} \end{array}$		The whole number result is placed at the top. Any remainders are ignored at this point.
$\begin{array}{r} 0 \\ 25 \overline{)425} \\ \underline{0} \end{array}$	$25 \times 0 = 0$	The answer from the first operation is multiplied by the divisor. The result is placed under the number divided into.
$\begin{array}{r} 0 \\ 25 \overline{)425} \\ \underline{0} \\ 4 \end{array}$	$4 - 0 = 4$	Now we subtract the bottom number from the top number.

$\begin{array}{r} 0 \\ 25 \overline{)425} \\ \underline{0} \downarrow \\ 42 \end{array}$		Bring down the next number of the dividend.
$\begin{array}{r} 0 \\ 25 \overline{)425} \\ \underline{0} \downarrow \\ 42 \end{array}$	$42 \div 25 = 1 \text{ remainder } 17$	Divide this number by the divisor.
$\begin{array}{r} 01 \\ 25 \overline{)425} \\ \underline{0} \downarrow \\ 42 \end{array}$		The whole number result is placed at the top. Any remainders are ignored at this point.
$\begin{array}{r} 01 \\ 25 \overline{)425} \\ \underline{0} \downarrow \\ 42 \\ \underline{25} \\ 17 \end{array}$	$25 \times 1 = 25$	The answer from the above operation is multiplied by the divisor. The result is placed under the last number divided into.
$\begin{array}{r} 01 \\ 25 \overline{)425} \\ \underline{0} \downarrow \\ 42 \\ \underline{25} \\ 17 \end{array}$	$42 - 25 = 17$	Now we subtract the bottom number from the top number.
$\begin{array}{r} 01 \\ 25 \overline{)425} \\ \underline{0} \downarrow \\ 42 \\ \underline{25} \downarrow \\ 175 \end{array}$		Bring down the next number of the dividend.

$ \begin{array}{r} 01 \\ 25 \overline{) 425} \\ \underline{0} \\ 42 \\ \underline{25} \\ 175 \end{array} $	$175 \div 25 = 7 \text{ remainder } 0$	Divide this number by the divisor.
$ \begin{array}{r} 017 \\ 25 \overline{) 425} \\ \underline{0} \\ 42 \\ \underline{25} \\ 175 \end{array} $		The whole number result is placed at the top. Any remainders are ignored at this point.
$ \begin{array}{r} 017 \\ 25 \overline{) 425} \\ \underline{0} \\ 42 \\ \underline{25} \\ 175 \\ 175 \end{array} $	$25 \times 7 = 175$	The answer from the above operation is multiplied by the divisor. The result is placed under the number divided into.
$ \begin{array}{r} 017 \\ 25 \overline{) 425} \\ \underline{0} \\ 42 \\ \underline{25} \\ 175 \\ \underline{175} \\ 000 \end{array} $	$175 - 175 = 0$	Now we subtract the bottom number from the top number.
		There are no more numbers to bring down. The answer must be 17

Practice:

1. $270 \div 3 =$

2. $372 \div 19 =$

3. $505 \div 15 =$

4. $448 \div 3 =$

5. $142 \div 11 =$

6. $853 \div 9 =$

7. A group of 4 pirates finds 690 gold coins and splits them equally. How many coins does each pirate get? How many coins are left?

8. At Shaw's Orchard, 16 apple trees are the same height. If the total height of all 16 trees is 816 ft, then what is the height of one tree?

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