

FAMILY MATH

Division of Decimal Numbers

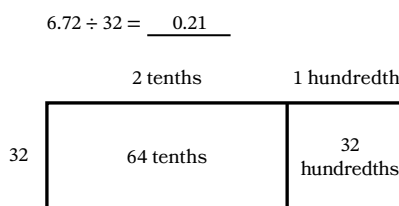
Dear Family,

Your student is learning to divide decimal numbers by using methods that are familiar from whole-number division. Students divide decimal numbers by one-digit whole numbers; by multiples of 10, 100, or 1,000; by two-digit whole numbers; and by other decimal numbers. By renaming decimal numbers as fractions, students connect division with decimal numbers to division with fractions. Your student sees division expressions as equal groups (e.g., 3 groups of 4 tenths make 12 tenths) and parts of a whole (e.g., 5 tenths is $\frac{1}{100}$ of 50). Students use their experience dividing whole numbers to select the most efficient strategy and determine the reasonableness of their answers, with a focus on the placement of the decimal point in the quotient.

$$3.6 \div 3 = 1.2$$

$$36 \text{ tenths} \div 3 = 12 \text{ tenths}$$

Unit thinking allows students to use whole-number division strategies to divide before renaming the quotient in decimal form.



Students draw an area model to divide decimal numbers by two-digit whole numbers.

$$4.55 \div 0.7 = 455 \text{ hundredths} \div 7 \text{ tenths}$$

$$= 455 \text{ hundredths} \div 70 \text{ hundredths}$$

$$= 455 \div 70$$

$$\begin{array}{r} 0.5 \\ 6.0 \\ 70 \overline{) 455.0} \\ \underline{- 420.0} \\ 35.0 \\ \underline{- 35.0} \\ 0 \end{array}$$

Students divide the divisor by 0.1 or 0.01 or use unit form with like units to divide by a whole number.

At-Home Activity

Find the Cost

Turn daily situations into questions to help your student practice dividing with decimal numbers.

- “A box of crackers costs \$3.75. What is the cost per serving if there are 10 servings in the box?” ($3.75 \div 10$)
- “A gym membership costs \$39.50 per month. What is the cost per day if there are 30 days in the month?” ($39.50 \div 30$) “What is the cost per visit if you visit the gym 15 times in the month?” ($39.50 \div 15$)