Decimal Placement in Division

Answer Key

Decimal point placement in the dividend affects the overall value of the quotient, or the answer to the division problem. If you change the decimal point location in the dividend, the digits in the quotient will stay the same, but the decimal point placement in the quotient will change.

If you move the decimal point in the dividend, you need to move it the same number of times, and in the same direction, in the quotient.

Dividend ÷ Divisor = Quotient

$345 ÷ 23 = 15$
$34.5 ÷ 23 = 1.5$
$3.45 ÷ 23 = 0.15$
$0.345 ÷ 23 = 0.015$ *

* If the decimal moves to a place where there is no existing digit, add a zero to the place value.

Directions: Look at the equation and use that information to guess the answer to the decimal division problem. Remember to place the decimal in the quotient given the placement within the expression.

1.

$434 ÷ 62 = 7$
$4.34 ÷ 62 = \underline{0.07}$

- In the blank, I placed the decimal (before)/after the __zero__ (number).
- The quotient is __seven hundredths__ .
- I (did)/didn't) add zeroes because __I needed to move the decimal twice to the left. The zero is holding the tenths place to show the hundredths place__ .

2.

$899 ÷ 29 = 31$
$89.9 ÷ 29 = \underline{3.1}$

- In the blank, I placed the decimal (before)/after the __one__ (number).
- The quotient is __three and one-tenth__ .
- I (did/didn't)) add zeroes because __I didn't have to hold any places with a zero__ .

3.

$594 ÷ 11 = 54$
$0.594 ÷ 11 = \underline{0.054}$

- In the blank, I placed the decimal (before)/after the __zero__ (number).
- The quotient is __fifty-four thousandths__ .
- I (did)/didn't) add zeroes because __I needed to move the decimal three times to the left. The zero is holding the tenths place to show the five in the hundredths place and the four in the thousandths place__ .

4.

$950 ÷ 19 = 50$
$9.5 ÷ 19 = \underline{0.5}$

- In the blank, I placed the decimal (before)/after the __five__ (number).
- The quotient is __five tenths__ .
- I (did/didn't)) add zeroes because __I didn't have to hold any places with a zero__ .