

Decimal Placement in Division

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

$$345 \div 23 = 15$$

$$34.5 \div 23 = 1.5$$

$$3.45 \div 23 = 0.15$$

$$0.345 \div 23 = 0.015 *$$

* 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. $434 \div 62 = 7$
 $4.34 \div 62 = \underline{\hspace{2cm}}$

- In the blank, I placed the decimal before/after the _____ (number).
- The quotient is _____.
- I (did/didn't) add zeroes because _____

2. $899 \div 29 = 31$
 $89.9 \div 29 = \underline{\hspace{2cm}}$

- In the blank, I placed the decimal before/after the _____ (number).
- The quotient is _____.
- I (did/didn't) add zeroes because _____

3. $594 \div 11 = 54$
 $0.594 \div 11 = \underline{\hspace{2cm}}$

- In the blank, I placed the decimal before/after the _____ (number).
- The quotient is _____.
- I (did/didn't) add zeroes because _____

4. $950 \div 19 = 50$
 $9.5 \div 19 = \underline{\hspace{2cm}}$

- In the blank, I placed the decimal before/after the _____ (number).
- The quotient is _____.
- I (did/didn't) add zeroes because _____

