

PreAlgebra
Skill-Builder #D-9
Dividing Decimals by Powers of 10

When dividing a decimal by 10^n , we must move the decimal point n places to the left of its current location. Use zeros to fill in any missing places. Note that n coincides with the number of zeros in the power of 10.

- Reminders:
- 1) The sign of the number remains the same.
 - 2) If the number is a whole number, the decimal point is after the place value of ones, but before the place value of tenths.

Example 1:

Divide: $-67.235 \div 100,000$

 move the decimal point 5 places to the left of its current location

$100,000 = 10^5$ (since there are 5 zeros)

Answer: -0.00067235

Example 2:

Divide: $5.00023 \div 100$

 move the decimal point 2 places to the left of its current location

$100 = 10^2$ (since there are 2 zeros)

Answer: 0.0500023

Example 3:

Divide: $-43,346 \times 10,000$

 move the decimal point (after the ones digit) 4 places to the left

$10,000 = 10^4$ (since there are 4 zeros)

Answer: -4.3346

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1. Divide: $-56.7 \div 1,000$

2. Divide: $2,586.127 \div 10$

3. Divide: $-452.317 \div 10,000$

4. Divide: $256 \div 1,000,000$

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Answers

1. -0.0567
2. 258.6127
3. -0.0452317
4. 0.000256

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