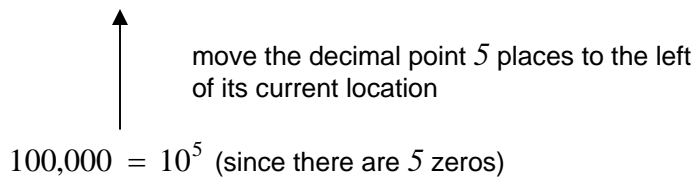**PreAlgebra**
Skill-Builder #D–9
Dividing Decimals by Powers of 10

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.
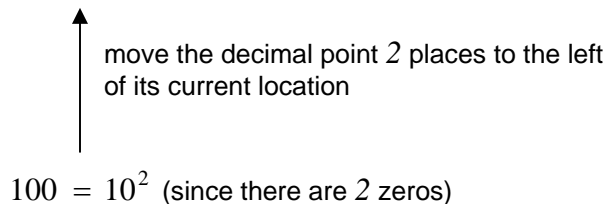
Example 1:

Divide: $-67.235 \div 100,000$

move the decimal point *5* places to the left of its current location
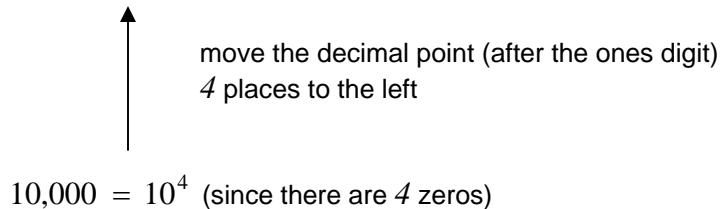
$100,000 = 10^5$ (since there are *5* zeros)

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

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

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

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

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

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

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

Answers

1. -0.0567

2. 258.6127

3. -0.0452317

4. 0.000256

Prepared by Susan Vo, Summer 2010