

# Dividing by Powers of 10

Fill in the missing information below. You may use a calculator.

	Number Sentence	Number Sentence Without Exponents	Quotient/ Answer	Observations (How did the placement of the decimal change?)
1	$78.5 \div 10$	$78.5 \div \underline{\hspace{2cm}}$		The decimal moved ___ place(s) to the ___ in the answer
2	$78.5 \div 10^2$	$78.5 \div \underline{\hspace{2cm}}$		The decimal moved ___ place(s) to the ___ in the answer
3	$78.5 \div 10^3$	<b><math>78.5 \div \underline{1,000}</math></b>		The decimal moved ___ place(s) to the ___ in the answer
4	$78.5 \div 10^4$	$78.5 \div \underline{\hspace{2cm}}$		The decimal moved ___ place(s) to the ___ in the answer
5	$78.5 \div 10^5$	$78.5 \div \underline{\hspace{2cm}}$		The decimal moved ___ place(s) to the ___ in the answer
6	$34.6 \div 10^2$	$34.6 \div \underline{\hspace{2cm}}$		The decimal moved ___ place(s) to the ___ in the answer
7	$34.6 \div 10^3$	$34.6 \div \underline{\hspace{2cm}}$		The decimal moved ___ place(s) to the ___ in the answer
8	$34.6 \div 10^4$	$34.6 \div \underline{\hspace{2cm}}$		The decimal moved ___ place(s) to the ___ in the answer
9	$34.6 \div 10^5$	$34.6 \div \underline{\hspace{2cm}}$		The decimal moved ___ place(s) to the ___ in the answer

Explain this to a partner: What decimal placement pattern do you notice in the quotient, when a decimal number is divided by a power of 10. Discuss and write an explanation below.

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