

# 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	$78.5 \div 10$	$78.5 \div$ _____		The decimal moved ____ place(s) to the ____ in the answer
2	$7.85 \div 10^2$	$78.5 \div$ _____ $78.5 \div$ _____		The decimal moved ____ place(s) to the ____ in the answer
3	$785 \div 10^3$	$78.5 \div$ _____ $78.5 \div$ _____		The decimal moved ____ place(s) to the ____ in the answer
4	$23.4 \div 10^4$	$23.4 \div$ _____ $23.4 \div$ _____		The decimal moved ____ place(s) to the ____ in the answer
5	$2.34 \div 10^5$	$23.4 \div$ _____ $23.4 \div$ _____		The decimal moved ____ place(s) to the ____ in the answer
6	$234 \div 10^2$	$23.4 \div$ _____ $23.4 \div$ _____		The decimal moved ____ place(s) to the ____ in the answer
7	$27.6 \div 10^3$	$27.6 \div$ _____ $27.6 \div$ _____		The decimal moved ____ place(s) to the ____ in the answer
8	$276 \div 10^4$	$27.6 \div$ _____ $27.6 \div$ _____		The decimal moved ____ place(s) to the ____ in the answer
9	$2.76 \div 10^5$	$2.76 \div$ _____ $2.76 \div$ _____		The decimal moved ____ place(s) to the ____ in the answer

# Dividing by Powers of 10

Explain to a partner: Why there are patterns of the placement of the decimal point when a decimal is divided by a power of 10. Discuss your best explanation and write it below. Your may continue on the back if needed.

I observed

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We can generalize that when a number is divided by a power of ten,

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the decimal

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