## Dividing by <br> Powers of 10

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

|  | Number <br> Sentence | Number Sentence Without <br> Exponents | Quotient/ <br> Answer | Observations |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $78.5 \div 10$ |  |  |  |
| 2 | $78.5 \div 10^{2}$ | $78.5 \div 100$ |  |  |
| 3 | $78.5 \div 10^{3}$ |  |  |  |
| 4 | $78.5 \div 10^{4}$ |  |  |  |
| 5 | $78.5 \div 10^{5}$ |  |  |  |
| 6 | $34.6 \div 10^{2}$ |  |  |  |
| 7 | $34.6 \div 10^{3}$ |  |  |  |
| 8 | $34.6 \div 10^{4}$ |  |  |  |
| 9 | $34.6 \div 10^{5}$ |  |  |  |

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

