# 6.NS Tenths of (and So On) 

## Task

Since $0.1=\frac{1}{10}$, when we multiply by 0.1 , we are multiplying by one-tenth.
a. Multiply:

- $0.1 \times 100$
- $0.1 \times 10$
- $0.1 \times 1$
- $0.1 \times 0.1$
- $0.1 \times 0.01$
- $0.1 \times 0.001$
b. Describe the patterns you see in the products above.

Similarly, since $0.01=\frac{1}{100}$, when we multiply by 0.01 , we are multiplying by onehundredth.
c. Multiply:

- $0.01 \times 100$
- $0.01 \times 10$
- $0.01 \times 1$
- $0.01 \times 0.1$
- $0.01 \times 0.01$
- $0.01 \times 0.001$
d. Describe the patterns you see in the products above.
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Based only on the patterns above, what do you expect $0.0001 \times 0.00001$ to be? Explain why that must be true by thinking of these decimals as fractions.
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