To write numbers more mathematically after \times or \div by 10 or 100 or 1000 use these two rules

(i) Look at the digits **before** (to the left of) the decimal point: Are there any 1 to 9 digits?

Yes: Cross out any 0 digits before (to the left of) the first (most left) 1 to 9 digit

$$0.003$$
 \rightarrow

No: Keep **one** 0 and cross out the rest OR write 0 if there is no 0

$$0 \cdot 0 \cdot 0 \cdot 3 \rightarrow 0 \cdot 0 \cdot 3$$

$$475 \rightarrow 0475$$

(ii) Look at the digits **after** (to the right of) the decimal point: Are there any 1 to 9 digits?

Yes: Cross out any 0 digits after (to the right of) the last (most right) 1 to 9 digit

$$6 6 70 \rightarrow 6 70$$

No: Cross out the decimal point and any 0 digits

To write numbers more mathematically after \times or \div by 10 or 100 or 1000 use these two rules

(i) Look at the digits **before** (to the left of) the decimal point: Are there any 1 to 9 digits?

Yes: Cross out any 0 digits before (to the left of) the first (most left) 1 to 9 digit

$$0.003$$
 \rightarrow 0.003

No: Keep **one** 0 and cross out the rest OR write 0 if there is no 0

$$0 \cdot 0 \cdot 0 \cdot 3 \rightarrow 0 \cdot 0 \cdot 3$$

$$45$$
 \rightarrow 045

(ii) Look at the digits **after** (to the right of) the decimal point: Are there any 1 to 9 digits?

Yes: Cross out any 0 digits after (to the right of) the last (most right) 1 to 9 digit

$$6\cancel{6}\cancel{7}\cancel{0}$$
 \rightarrow $6\cancel{6}\cancel{7}\cancel{0}$

No: Cross out the decimal point and any 0 digits