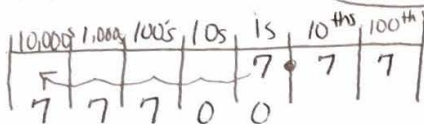


b. Multiply 7.77×10^4 . Explain the shift of the digits and the change in the value of each digit.

$$7.77 \times 10^4 =$$

$$7.77 \times (10 \times 10 \times 10 \times 10) =$$

$$7.77 \times 10,000 = 77,700$$



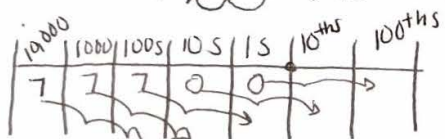
10^4 is the same as 10,000 or $10 \times 10 \times 10 \times 10$. Each digit becomes 10,000 times larger.

c. Divide the product from (b) by 10^2 . Explain the shift of the digits and the change in the value of each digit.

$$77,700 \div 10^2$$

$$77,700 \div 100$$

$$77,700 \div 100 = 777$$



When dividing by 10^2 , each digit shifts 2 places to the right. 10^2 equals 10×10 or 100, each digit becomes $\frac{1}{100}$ as large.

3. Snow totals collected in a gauge measured to be 2.4 cm when rounded to the nearest tenth of a centimeter.

a. Circle all the measurements below that could be the actual measurement of the rainfall.

2.341 cm

2.449 cm

2.352 cm

2.395 cm

b. Convert the rounded measurement to meters. Write an equation to show your work

Metric Length	
10 mm	1 cm
100 cm	1 m
1000 m	1 km

$$2.4_{\text{cm}} \div 10^2 =$$

$$2.4_{\text{cm}} \div 100 =$$

$$2.4_{\text{cm}} = 0.023 \text{ m}$$

cm to m
→

cm is smaller than meters

base unit	deci 10x	centi 100x
m	smaller $\div 10$	smaller $\div 10$

$$\div 10^2$$