

## THE POWER OF 10

EXPONENT: A SUPERSCRIPT NUMBER THAT SHOWS THE NUMBER OF TIMES A CERTAIN NUMBER OR EXPRESSION IS TO BE MULTIPLIED BY ITSELF.

$$10^2 \\ 10 \times 10$$

$$72^4 \\ 72 \cdot 72 \cdot 72 \cdot 72$$

$$(8.3)^3 \\ (8.3)(8.3)(8.3)$$

POWERS OF 10: NUMBERS THAT CAN BE FORMED BY MULTIPLYING 10 BY ITSELF REPEATEDLY.

POWER	EXPRESSION	STANDARD FORM
$10^1$	10	10
$10^2$	$10 \times 10$	100
$10^3$	$10 \times 10 \times 10$	1,000
$10^4$	$10 \times 10 \times 10 \times 10$	10,000

MULTIPLY. ANSWER IN STANDARD FORM.

Ex:

$$5 \times 10^2 \\ 5.00$$

$$\boxed{500}$$

Q40:

$$12 \times 10^4 \\ 12.0000$$

$$\boxed{120,000}$$

Ex:)  $2.2 \times 10^3$   
2.200  
 $\boxed{2,200}$

Q40:)  $5.48 \times 10^4$   
5.4800  
 $\boxed{54,800}$

DIVIDE. ANSWER IN STANDARD FORM.

Ex:)  $35 \div 10^3$   
0.35  
 $\boxed{0.035}$

Q40:)  $124 \div 10^5$   
0.00124  
 $\boxed{0.00124}$

Ex:)  $124.6 \div 10^2$   
124.6  
 $\boxed{1.246}$

Q40:)  $9.9 \div 10^5$   
0.000099  
 $\boxed{0.000099}$