

# MIL4: Metric with Exponents

Sept. 17, 2020

## Fluency:

$$32.4 \times 10 = 324$$

$$32.4 \div 10 = 3.24$$

$$32.4 \times 100 = 3240$$

$$32.4 \div 100 = 0.324$$

$$837 \div 1000 = 0.837$$

$$0.418 \times 1000 = 418$$

$$100 = 10^2$$

$$1000 = 10^3$$

$$10,000 = 10^4$$

$$1,000,000 = 10^6$$

$$10,000,000,000 = 10^{10}$$

1000 m

100 m

10 m

$\frac{1}{10}$  m

$\frac{1}{100}$  m

$\frac{1}{1000}$  m

Kilo-

Hecto-

Deka-

unit

deci-

centi-

milli-

meter

				1	.	0	.	0	.	
				1		0		0		0
0	.	0		1						
1		0		0						
				3	*	4		5	.	

1 meter = 100 centimeters

1 meter = 1000 millimeters

1 meter = 100 cm

2 m = 200 cm

5 m = 500 cm

4.7 m = 470 cm

32.5 m = 3250 cm

434 m = 43,400 cm

3.6 m = 360 cm

$2 \text{ m} \times 100 = 200 \text{ cm}$

$5 \text{ m} \times 100 = 500 \text{ cm}$

$4.7 \text{ m} \times 100 = 470$

$32.5 \times 100 = 3250$

$434 \text{ m} \times 10^2 = 43400$

$3.6 \text{ m} \times 10^2 = 360$

1 meter = 1000 mm

2 meter = 2000 mm

4.7 m = 4700 mm

$1 \times 1000 = 1000$

$2 \times 10^3 = 2000$

$4.7 \times 10^3 = 4700$

100 cm = 1 meter

300 cm = 3 m

6500 cm = 65 m

$300 \div 100 = 3$

$6500 \div 10^2 = 65$

1000 ~~mm~~ = 1 m

6000 mm = 6 m

4570 mm = 4.57 m

483,244 mm =           m

$6000 \div 1000 = 6$

$4570 \div 1000 = 4.57$

$483,244 \div 10^3 = 483.244$

## Conversions

Meters  $\rightarrow$  Centimeters

$$\times 100 \quad \times 10^2$$

Meter  $\rightarrow$  Millimeter

$$\times 1000 \quad \times 10^3$$

Centimeter  $\rightarrow$  Millimeter

$$\times 10 \quad \times 10^1$$

Centimeter  $\rightarrow$  Meter

$$\div 100 \quad \div 10^2$$

Millimeter  $\rightarrow$  Meter

$$\div 1000 \quad \div 10^3$$

Millimeter  $\rightarrow$  Centimeter

$$\div 10 \quad \div 10^1$$

1,000,000	100,000	10,000	1,000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1,000}$
Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
						4	.	7		
				4	7	0	.			
					3	2	.	5		
			3	2	5	0	.			
						4	.	7		
			4	7	0	0	.			
					6	3	.	5		
		6	3	5	0	0	.			
			6	5	0	0	.			
					6	5	.	0	0	

millions through thousandths place value chart