

Name: _____ Row: _____

Date: _____ Period: _____

SI Prefixes - Length

Prefix	Symbol	Factor of Base Unit
kilometer	km	1,000
meter	m	1
centimeter	cm	.01
millimeter	mm	.001
micrometer	μm	.000001
nanometer	nm	.000000001

Large value to small value = decimal to right | Small value to large value = decimal to left

To change SI prefixes is as simple as moving the decimal place. You are going to practice this by discovering how many decimals you need to move and then by drawing arrows under the lines to move the decimal point. Start with the measurement of the left side and convert it to the measurement in bold on the right side. Example:

$$1000 \text{ m} = \overset{1}{\underbrace{\quad \overset{0}{\quad} \overset{0}{\quad} \overset{0}{\quad}}_{\quad}} = 1 \text{ km}$$

1) $10 \text{ m} = \underline{1} \underline{0} . \underline{\quad} \underline{\quad} \underline{\quad} = \underline{\quad} \text{ mm}$

2) $1.2 \text{ m} = \underline{1} . \underline{2} \underline{\quad} \underline{\quad} \underline{\quad} = \underline{\quad} \text{ cm}$

3) $20 \text{ m} = \underline{\quad} \underline{\quad} \underline{\quad} \underline{2} \underline{0} . = \underline{\quad} \text{ km}$

4) $1 \text{ nm} = \underline{\quad} \underline{\quad} \underline{1} . \underline{0} = \underline{\quad} \text{ μm}$

5) $324 \text{ cm} = \underline{3} \underline{2} \underline{4} . \underline{\quad} = \underline{\quad} \text{ mm}$

6) $10 \text{ mm} = \underline{\quad} \underline{\quad} \underline{1} \underline{0} . \underline{\quad} = \underline{\quad} \text{ m}$

7) $4.7 \text{ m} = \underline{4} . \underline{7} \underline{\quad} \underline{\quad} \underline{\quad} = \underline{\quad} \text{ cm}$

8) $8 \text{ m} = \underline{\quad} \underline{\quad} \underline{\quad} \underline{8} . \underline{\quad} = \underline{\quad} \text{ km}$

9) $1 \text{ μm} = \underline{1} . \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} = \underline{\quad} \text{ nm}$

10) $6 \text{ m} = \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} = \underline{\quad} \text{ mm}$

11) $13 \text{ m} = \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} = \underline{\quad} \text{ cm}$

12) $7 \text{ m} = \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} = \underline{\quad} \text{ mm}$

13) $60 \text{ m} = \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} = \underline{\quad} \text{ km}$

14) $9 \text{ μm} = \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} = \underline{\quad} \text{ nm}$

15) $.08 \text{ km} = \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} \underline{\quad} = \underline{\quad} \text{ cm}$