



## Measurement - Units Large/Small Practice Metric

1 What is the power of 10 for this abbreviation?

**da (ie dag, dam)**

|             |          |
|-------------|----------|
| A $10^{-1}$ | B $10^0$ |
| C $10^{-3}$ | D $10^3$ |
| E $10^1$    | F $10^2$ |

2 What is the abbreviation for this power of 10?

$10^{-3}$

|          |      |
|----------|------|
| A (base) | B m  |
| C h      | D da |
| E c      | F d  |

3 Use the mnemonic 'Terribly Gigantic Monsters Killed One Million Men Napping Peacefully' to remember the missing prefix

|            |        |            |
|------------|--------|------------|
| Terribly   | tera   | $10^{12}$  |
| Gigantic   | giga   | $10^9$     |
| Monsters   | mega   | $10^6$     |
| Killed     | kilo   | $10^3$     |
| One        | (base) | $10^0$     |
| Million    | milli  | $10^{-3}$  |
| Men        | micro  | $10^{-6}$  |
| Napping    | ?      | $10^{-9}$  |
| Peacefully | pico   | $10^{-12}$ |

|        |         |
|--------|---------|
| (base) | B mega  |
| C nano | D giga  |
| E tera | F milli |

4 Each prefix in the mnemonic 'Terribly Gigantic Monsters Killed One Million Men Napping Peacefully' is 1000x smaller. What is the missing exponent?

|            |        |            |
|------------|--------|------------|
| Terribly   | tera   | $10^{12}$  |
| Gigantic   | giga   | $10^9$     |
| Monsters   | mega   | $10^6$     |
| Killed     | kilo   | $10^3$     |
| One        | (base) | ?          |
| Million    | milli  | $10^{-3}$  |
| Men        | micro  | $10^{-6}$  |
| Napping    | nano   | $10^{-9}$  |
| Peacefully | pico   | $10^{-12}$ |

|        |             |
|--------|-------------|
| $10^0$ | B $10^{-3}$ |
| $10^3$ | D $10^9$    |
| $10^6$ | F $10^{-6}$ |

5 What is the abbreviation for 'mega'?

|        |   |           |
|--------|---|-----------|
| tera   | T | $10^{12}$ |
| giga   | G | $10^9$    |
| mega   | ? | $10^6$    |
| kilo   | k | $10^3$    |
| (base) |   | $10^0$    |

|     |          |
|-----|----------|
| A T | B k      |
| C M | D (base) |
| E G |          |

6 What is the prefix that is abbreviated 'k'?

|        |   |           |
|--------|---|-----------|
| tera   | T | $10^{12}$ |
| giga   | G | $10^9$    |
| mega   | M | $10^6$    |
| ?      | k | $10^3$    |
| (base) |   | $10^0$    |

|          |        |
|----------|--------|
| A (base) | B kilo |
| C giga   | D tera |
| E mega   |        |

7 What is the exponent for 'tera'?

|        |   |        |
|--------|---|--------|
| tera   | T | ?      |
| giga   | G | $10^9$ |
| mega   | M | $10^6$ |
| kilo   | k | $10^3$ |
| (base) |   | $10^0$ |

|          |             |          |
|----------|-------------|----------|
| A $10^6$ | B $10^{12}$ | C $10^9$ |
| D $10^3$ | E $10^0$    |          |

8 What is the abbreviation for 'milli'?

|        |       |            |
|--------|-------|------------|
| (base) |       | $10^0$     |
| milli  | ?     | $10^{-3}$  |
| micro  | $\mu$ | $10^{-6}$  |
| nano   | n     | $10^{-9}$  |
| pico   | p     | $10^{-12}$ |

|     |          |
|-----|----------|
| A m | B $\mu$  |
| C n | D (base) |
| E p |          |



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9 What is the prefix that is abbreviated 'm'?

(base)  $10^0$   
? m  $10^{-3}$   
micro  $\mu$   $10^{-6}$   
nano n  $10^{-9}$   
pico p  $10^{-12}$

|            |             |
|------------|-------------|
| A<br>milli | B<br>nano   |
| C<br>pico  | D<br>(base) |
| E<br>micro |             |

10 What is the exponent for 'micro'?

(base)  $10^0$   
milli m  $10^{-3}$   
micro  $\mu$  ?  
nano n  $10^{-9}$   
pico p  $10^{-12}$

|                 |                |
|-----------------|----------------|
| A<br>$10^{-12}$ | B<br>$10^{-6}$ |
| C<br>$10^{-3}$  | D<br>$10^{-9}$ |
| E<br>$10^0$     |                |

11 Which unit is larger

**'G' (ie Gg) or 'T' (ie Tg)**

|            |            |
|------------|------------|
| A<br><br>G | B<br><br>T |
|------------|------------|

12 Which prefix is larger

**'kilo' or '(base)'**

|               |                 |
|---------------|-----------------|
| A<br><br>kilo | B<br><br>(base) |
|---------------|-----------------|

13 Which unit is smaller

**'p' (ie pg) or 'n' (ie ng)**

|            |            |
|------------|------------|
| A<br><br>n | B<br><br>p |
|------------|------------|

14 Which prefix is smaller

**'pico' or 'nano'**

|               |               |
|---------------|---------------|
| A<br><br>nano | B<br><br>pico |
|---------------|---------------|

15 Which unit is smaller

**'a' (ie ag) or 'f' (ie fg)**

|            |            |
|------------|------------|
| A<br><br>f | B<br><br>a |
|------------|------------|

16 Which prefix is smaller

**'yocto' or 'zepto'**

|                |                |
|----------------|----------------|
| A<br><br>yocto | B<br><br>zepto |
|----------------|----------------|



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**17** Which unit is larger

**'Y' (ie Yg) or 'Z' (ie Zg)**

A

Z

B

Y

**18** Which prefix is larger

**'mega' or 'giga'**

A

mega

B

giga

**19** Multiply these numbers

**$1.1 \times 10$**

A

1.1

B

11

C

0.1

D

1,100

E

110

**20** Multiply these numbers

**$1.1 \times 100,000$**

A

1,100

B

11,000

C

110,000

D

11,000,000

E

1,100,000

**21** Convert this scientific notation number to regular notation

**$5 \times 10^{-3}$**

A

0.05

B

0.5

C

0.005

D

0.0005

**22** Convert this scientific notation number to regular notation

**$7 \times 10^{-3}$**

A

0.0007

B

0.07

C

0.7

D

0.007

**23** What is the abbreviation for this prefix?

**mega**

A

G

B

Y

C

E

D

Z

E

M

F

T

**24** Convert this scientific notation number to regular notation

**$6 \times 10^{-6}$**

A

0.0000006

B

0.00006

C

0.000006

D

0.0006



## Measurement - Units Large/Small Practice Metric

**25** What is the power of 10 for this prefix?

**yotta**

|                |                |                |
|----------------|----------------|----------------|
| A<br>$10^{24}$ | B<br>$10^{15}$ | C<br>$10^{21}$ |
| D<br>$10^{18}$ | E<br>$10^6$    | F<br>$10^{12}$ |

**26** Convert this scientific notation number to regular notation

$$8 \times 10^{-7}$$

|                 |                  |
|-----------------|------------------|
| A<br>0.00008    | B<br>0.000000008 |
| C<br>0.00000008 | D<br>0.000008    |

**27** What is the prefix for this abbreviation?

**G (ie Gg, Gm)**

|           |            |            |
|-----------|------------|------------|
| A<br>mega | B<br>peta  | C<br>yotta |
| D<br>exa  | E<br>zetta | F<br>giga  |

**28** Use the mnemonic 'Make No Peace For A Zillion Years' to remember the missing prefix

|         |       |            |
|---------|-------|------------|
| Make    | micro | $10^{-6}$  |
| No      | nano  | $10^{-9}$  |
| Peace   | pico  | $10^{-12}$ |
| For     | femto | $10^{-15}$ |
| A       | ?     | $10^{-18}$ |
| Zillion | zepto | $10^{-21}$ |
| Years   | yocto | $10^{-24}$ |

|            |            |            |
|------------|------------|------------|
| A<br>zepto | B<br>nano  | C<br>femto |
| D<br>yocto | E<br>micro | F<br>atto  |

**29** Convert this number to scientific notation

**0.002**

|                         |                          |
|-------------------------|--------------------------|
| A<br>$2 \times 10^{-1}$ | B<br>$2 \times 10^{-2}$  |
| C<br>$2 \times 10^{-3}$ | D<br>$2 \times 10^{-4}$  |
| E<br>$0 \times 10^{-3}$ | F<br>$20 \times 10^{-3}$ |

**30** What is the power of 10 for this abbreviation?

**P (ie Pg, Pm)**

|                |                |                |
|----------------|----------------|----------------|
| A<br>$10^9$    | B<br>$10^{15}$ | C<br>$10^{24}$ |
| D<br>$10^{12}$ | E<br>$10^{21}$ | F<br>$10^{18}$ |

**31** Each prefix in the mnemonic 'Make No Peace For A Zillion Years' is 1000x smaller. What is the missing exponent?

|         |       |            |
|---------|-------|------------|
| Make    | micro | $10^{-6}$  |
| No      | nano  | $10^{-9}$  |
| Peace   | pico  | $10^{-12}$ |
| For     | femto | $10^{-15}$ |
| A       | atto  | $10^{-18}$ |
| Zillion | zepto | ?          |
| Years   | yocto | $10^{-24}$ |

|                 |                 |
|-----------------|-----------------|
| A<br>$10^{-24}$ | B<br>$10^{-21}$ |
| C<br>$10^{-9}$  | D<br>$10^{-15}$ |
| E<br>$10^{-6}$  | F<br>$10^{-18}$ |

**32** Convert this number to scientific notation

**0.007**

|                         |                          |
|-------------------------|--------------------------|
| A<br>$7 \times 10^{-1}$ | B<br>$70 \times 10^{-3}$ |
| C<br>$1 \times 10^{-3}$ | D<br>$7 \times 10^{-3}$  |
| E<br>$7 \times 10^{-4}$ | F<br>$7 \times 10^{-2}$  |



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33 What is the abbreviation for this power of 10?

$$10^6$$

|        |        |        |
|--------|--------|--------|
| A<br>T | B<br>Y | C<br>M |
| D<br>P | E<br>E | F<br>Z |

34 What is the prefix for this power of 10?

$$10^{21}$$

|            |           |            |
|------------|-----------|------------|
| A<br>exa   | B<br>tera | C<br>yotta |
| D<br>zetta | E<br>mega | F<br>peta  |

35 Convert this number to scientific notation

**0.0002**

|                         |                          |
|-------------------------|--------------------------|
| A<br>$2 \times 10^{-2}$ | B<br>$0 \times 10^{-4}$  |
| C<br>$2 \times 10^{-3}$ | D<br>$2 \times 10^{-5}$  |
| E<br>$2 \times 10^{-4}$ | F<br>$20 \times 10^{-4}$ |

36 Convert this number to scientific notation

**0.00000004**

|                          |                         |
|--------------------------|-------------------------|
| A<br>$40 \times 10^{-8}$ | B<br>$4 \times 10^{-7}$ |
| C<br>$4 \times 10^{-6}$  | D<br>$4 \times 10^{-8}$ |
| E<br>$4 \times 10^{-9}$  | F<br>$0 \times 10^{-8}$ |

37 Convert this scientific notation number to regular notation

$$9.5 \times 10^{-2}$$

|             |           |
|-------------|-----------|
| A<br>0.095  | B<br>0.95 |
| C<br>0.0095 | D<br>9.5  |

38 Convert this scientific notation number to regular notation

$$1.1 \times 10^{-3}$$

|             |              |
|-------------|--------------|
| A<br>0.011  | B<br>0.00011 |
| C<br>0.0011 | D<br>0.11    |

39 Convert this scientific notation number to regular notation

$$8.4 \times 10^{-5}$$

|                |              |
|----------------|--------------|
| A<br>0.000084  | B<br>0.00084 |
| C<br>0.0000084 | D<br>0.0084  |

40 Convert this scientific notation number to regular notation

$$4.6 \times 10^{-5}$$

|                |              |
|----------------|--------------|
| A<br>0.000046  | B<br>0.0046  |
| C<br>0.0000046 | D<br>0.00046 |



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**41** Convert this number to scientific notation

**0.009**

- |                         |                        |
|-------------------------|------------------------|
| A $9.0 \times 10^{-2}$  | B $9.0 \times 10^{-3}$ |
| C $90.0 \times 10^{-3}$ | D $0.9 \times 10^{-3}$ |
| E $9.0 \times 10^{-1}$  | F $9.0 \times 10^{-4}$ |

**42** Convert this number to scientific notation

**0.00099**

- |                        |                         |
|------------------------|-------------------------|
| A $1.0 \times 10^{-4}$ | B $99.0 \times 10^{-4}$ |
| C $9.9 \times 10^{-4}$ | D $9.9 \times 10^{-5}$  |
| E $9.9 \times 10^{-2}$ | F $9.9 \times 10^{-3}$  |

**43** Convert this number to scientific notation

**0.00054**

- |                        |                         |
|------------------------|-------------------------|
| A $5.4 \times 10^{-3}$ | B $5.4 \times 10^{-4}$  |
| C $5.4 \times 10^{-5}$ | D $5.4 \times 10^{-2}$  |
| E $0.5 \times 10^{-4}$ | F $54.0 \times 10^{-4}$ |

**44** Convert this number to scientific notation

**0.000000058**

- |                         |                        |
|-------------------------|------------------------|
| A $5.8 \times 10^{-7}$  | B $5.8 \times 10^{-9}$ |
| C $0.6 \times 10^{-8}$  | D $5.8 \times 10^{-6}$ |
| E $58.0 \times 10^{-8}$ | F $5.8 \times 10^{-8}$ |

**45** Convert this scientific notation number to regular notation

$6.03 \times 10^{-3}$

- |           |            |
|-----------|------------|
| A 0.00603 | B 0.0603   |
| C 0.603   | D 0.000603 |

**46** Convert this scientific notation number to regular notation

$8.63 \times 10^{-3}$

- |           |            |
|-----------|------------|
| A 0.0863  | B 0.863    |
| C 0.00863 | D 0.000863 |

**47** Convert this scientific notation number to regular notation

$8.17 \times 10^{-4}$

- |            |             |
|------------|-------------|
| A 0.0817   | B 0.0000817 |
| C 0.000817 | D 0.00817   |

**48** Convert this scientific notation number to regular notation

$2.25 \times 10^{-6}$

- |               |              |
|---------------|--------------|
| A 0.0000225   | B 0.00000225 |
| C 0.000000225 | D 0.000225   |



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**49** Convert this number to scientific notation

**0.00412**

- |                          |                         |
|--------------------------|-------------------------|
| A $41.20 \times 10^{-3}$ | B $4.12 \times 10^{-4}$ |
| C $0.41 \times 10^{-3}$  | D $4.12 \times 10^{-1}$ |
| E $4.12 \times 10^{-3}$  | F $4.12 \times 10^{-2}$ |

**50** Convert this number to scientific notation

**0.0000769**

- |                          |                         |
|--------------------------|-------------------------|
| A $7.69 \times 10^{-6}$  | B $7.69 \times 10^{-4}$ |
| C $0.77 \times 10^{-5}$  | D $7.69 \times 10^{-5}$ |
| E $76.90 \times 10^{-5}$ | F $7.69 \times 10^{-3}$ |

**51** Convert this number to scientific notation

**0.000218**

- |                         |                          |
|-------------------------|--------------------------|
| A $2.18 \times 10^{-4}$ | B $2.18 \times 10^{-2}$  |
| C $2.18 \times 10^{-5}$ | D $21.80 \times 10^{-4}$ |
| E $0.22 \times 10^{-4}$ | F $2.18 \times 10^{-3}$  |

**52** Convert this number to scientific notation

**0.000000165**

- |                          |                         |
|--------------------------|-------------------------|
| A $16.50 \times 10^{-7}$ | B $1.65 \times 10^{-7}$ |
| C $0.17 \times 10^{-7}$  | D $1.65 \times 10^{-5}$ |
| E $1.65 \times 10^{-8}$  | F $1.65 \times 10^{-6}$ |

**53** What is the abbreviation for this prefix?

**(base)**

- |          |     |
|----------|-----|
| A M      | B G |
| C (base) | D T |
| E k      |     |

**54** What is the power of 10 for this prefix?

**kilo**

- |             |          |          |
|-------------|----------|----------|
| A $10^3$    | B $10^6$ | C $10^9$ |
| D $10^{12}$ | E $10^0$ |          |

**55** What is the prefix for this abbreviation?

**T (ie Tg, Tm)**

- |          |        |
|----------|--------|
| A mega   | B tera |
| C (base) | D kilo |
| E giga   |        |

**56** What is the abbreviation for this prefix?

**micro**

- |     |     |         |
|-----|-----|---------|
| A z | B p | C $\mu$ |
| D f | E n | F a     |



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57 What is the power of 10 for this abbreviation?

**M (ie Mg, Mm)**

|          |             |          |
|----------|-------------|----------|
| A $10^6$ | B $10^{12}$ | C $10^0$ |
| D $10^9$ | E $10^3$    |          |

58 What is the abbreviation for this power of 10?

$10^{12}$

|          |     |
|----------|-----|
| A (base) | B G |
| C T      | D k |
| E M      |     |

59 What is the power of 10 for this prefix?

**atto**

|              |              |
|--------------|--------------|
| A $10^{-24}$ | B $10^{-15}$ |
| C $10^{-9}$  | D $10^{-18}$ |
| E $10^{-12}$ | F $10^{-6}$  |

60 What is the prefix for this abbreviation?

**a (ie ag, am)**

|         |         |        |
|---------|---------|--------|
| A micro | B zepto | C nano |
| D femto | E yocto | F atto |

61 What is the prefix for this power of 10?  
 $10^0$

|        |          |
|--------|----------|
| A giga | B kilo   |
| C tera | D (base) |
| E mega |          |

62 What is the power of 10 for this abbreviation?

**a (ie ag, am)**

|              |              |
|--------------|--------------|
| A $10^{-24}$ | B $10^{-15}$ |
| C $10^{-12}$ | D $10^{-6}$  |
| E $10^{-9}$  | F $10^{-18}$ |

63 What is the abbreviation for this power of 10?

$10^{-9}$

|     |         |     |
|-----|---------|-----|
| A f | B $\mu$ | C z |
| D n | E p     | F y |

64 What is the prefix for this power of 10?

$10^{-21}$

|         |         |         |
|---------|---------|---------|
| A atto  | B nano  | C micro |
| D yocto | E zepto | F femto |



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**65** What is the abbreviation for this prefix?

**nano**

|          |     |
|----------|-----|
| A (base) | B p |
| C m      | D n |
| E $\mu$  |     |

**66** What is the power of 10 for this prefix?

**micro**

|              |             |
|--------------|-------------|
| A $10^{-9}$  | B $10^{-3}$ |
| C $10^0$     | D $10^{-6}$ |
| E $10^{-12}$ |             |

**67** What is the prefix for this abbreviation?

**$\mu$  (ie  $\mu\text{g}$ ,  $\mu\text{m}$ )**

|         |          |
|---------|----------|
| A micro | B nano   |
| C pico  | D (base) |
| E milli |          |

**68** What is the power of 10 for this abbreviation?

**m (ie mg, mm)**

|             |              |
|-------------|--------------|
| A $10^{-3}$ | B $10^0$     |
| C $10^{-9}$ | D $10^{-12}$ |
| E $10^{-6}$ |              |

**69** What is the abbreviation for this power of 10?

$10^0$

|         |          |
|---------|----------|
| A m     | B (base) |
| C n     | D p      |
| E $\mu$ |          |

**70** What is the prefix for this power of 10?

$10^{-9}$

|         |          |
|---------|----------|
| A micro | B milli  |
| C pico  | D (base) |
| E nano  |          |

**71** Convert this value to meters

**4 dm**

|          |            |
|----------|------------|
| A 0.04 m | B 0.004 m  |
| C 0.4 m  | D 0.0004 m |
| E 4 m    | F 400 m    |

**72** Convert this value to centimeters

**0.01 m**

|            |            |
|------------|------------|
| A 1,000 cm | B 1 cm     |
| C 100 cm   | D 10 cm    |
| E 0.1 cm   | F 0.001 cm |

**Measurement - Units Large/Small Practice  
Metric****73** Convert this value to liters**3 dl**

|   |         |   |          |
|---|---------|---|----------|
| A | 3 l     | B | 0.3 l    |
| C | 0.003 l | D | 0.0003 l |
| E | 0.03 l  | F | 300 l    |

**74** Convert this value to centiliters**0.09 l**

|   |          |   |          |
|---|----------|---|----------|
| A | 9,000 cl | B | 900 cl   |
| C | 0.9 cl   | D | 9 cl     |
| E | 0.09 cl  | F | 0.009 cl |

**75** Convert this value to grams**5 dg**

|   |          |   |        |
|---|----------|---|--------|
| A | 0.0005 g | B | 50 g   |
| C | 0.5 g    | D | 500 g  |
| E | 0.005 g  | F | 0.05 g |

**76** Convert this value to milligrams**0.002 g**

|   |        |   |          |
|---|--------|---|----------|
| A | 0.2 mg | B | 0.02 mg  |
| C | 20 mg  | D | 2 mg     |
| E | 200 mg | F | 0.002 mg |

**77** Convert this value to meters**6 dm**

|   |          |   |        |
|---|----------|---|--------|
| A | 0.006 m  | B | 6 m    |
| C | 0.0006 m | D | 60 m   |
| E | 0.6 m    | F | 0.06 m |

**78** Convert this value to millimeters**0.008 m**

|   |          |   |        |
|---|----------|---|--------|
| A | 0.8 mm   | B | 80 mm  |
| C | 0.08 mm  | D | 800 mm |
| E | 0.008 mm | F | 8 mm   |

**79** Convert this value to liters**9 dal**

|   |        |   |          |
|---|--------|---|----------|
| A | 900 l  | B | 90,000 l |
| C | 0.09 l | D | 0.9 l    |
| E | 9 l    | F | 90 l     |

**80** Convert this value to kiloliters**5,000 l**

|   |         |   |          |
|---|---------|---|----------|
| A | 0.05 kl | B | 5,000 kl |
| C | 500 kl  | D | 0.5 kl   |
| E | 50 kl   | F | 5 kl     |