

Measurement - Units Intro - Metric

- 1 Measure the length of the crayon using the centimeter ruler



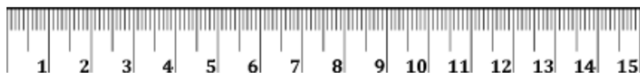
A 7 cm	B 4.5 cm	C 2 cm
D 7.5 cm	E 10.5 cm	F 11.5 cm

- 2 Measure the length of the pencil using the centimeter ruler



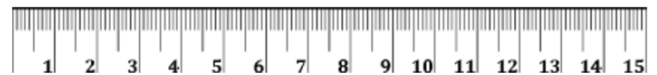
A 1 cm	B 7 cm	C 9.5 cm
D 10 cm	E 5.5 cm	F 6 cm

- 3 Measure the length of the crayon using the centimeter ruler



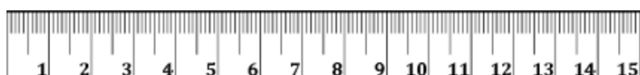
A 2 cm	B 6.5 cm	C 9.5 cm
D 8 cm	E 1.5 cm	F 2.5 cm

- 4 Measure the length of the pencil using the centimeter ruler



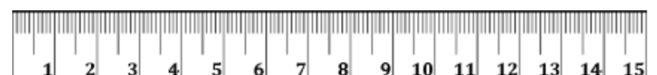
A 0.5 cm	B 8 cm	C 4 cm
D 7 cm	E 6 cm	F 7.5 cm

- 5 Measure the length of the crayon in millimeters using the centimeter ruler



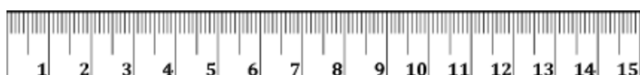
A 75 mm	B 15 mm	C 65 mm
D 50 mm	E 60 mm	F 95 mm

- 6 Measure the length of the crayon in millimeters using the centimeter ruler



A 70 mm	B 105 mm	C 60 mm
D 30 mm	E 25 mm	F 75 mm

- 7 Measure the length of the crayon in millimeters using the centimeter ruler

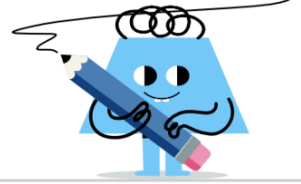


A 95 mm	B 100 mm	C 15 mm
D 65 mm	E 50 mm	F 60 mm

- 8 Measure the length of the pencil in millimeters using the centimeter ruler



A 95 mm	B 50 mm	C 65 mm
D 80 mm	E 70 mm	F 5 mm

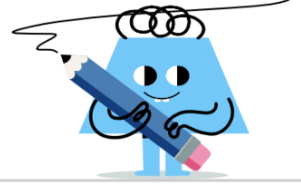
**Measurement - Units Intro - Metric****9** What is the best example of the given measurement unit?**1 kg**

A grain of sand

B paperclip

C dictionary

10 What is the most reasonable value for the given measurement?**The thickness of one grain of salt**A
1 mmB
1 μm **11** What is the most reasonable unit to make the given measurement?**The thickness of a mobile phone**A
micrometersB
millimeters**12** What is the most reasonable value for the given measurement?**The volume of a large takeout cup of coffee**A
340 mlB
340 l**13** What is the most reasonable unit to make the given measurement?**The volume of a car's gas tank**A
millilitersB
liters**14** What is the most reasonable value for the given measurement?**The mass of a paperclip**A
1 kgB
1 g**15** What is the most reasonable unit to make the given measurement?**The mass of an elephant**A
kilogramsB
grams**16** What is the most reasonable value for the given measurement?**The temperature that water boils**A
60 $^{\circ}\text{C}$ B
100 $^{\circ}\text{C}$



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17 What is the most reasonable value for the given measurement?

The time to drive across North America

A

6 hr

B

6 d

18 What is the most reasonable unit to make the given measurement?

The time for a decent runner to run the length of a football field

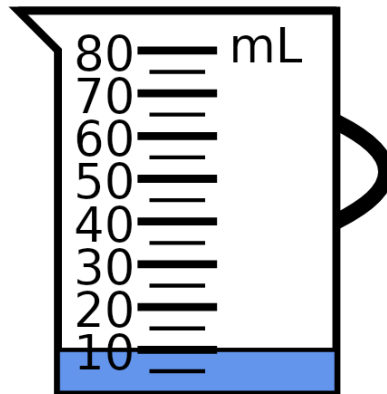
A

seconds

B

minutes

19 Measure the volume of water in the measuring cup



A

20 mL

B

0 mL

C

10 mL

D

15 mL

E

25 mL

F

35 mL

20 Is the given item narrower or wider than the measurement?

Is width of the Atlantic Ocean narrower or wider than 3,000 meters?

A

narrower

B

wider

21 Is the given item smaller or bigger than the measurement?

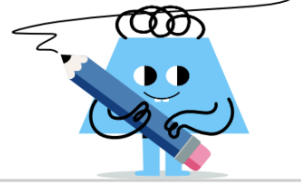
Is volume of one snowflake smaller or bigger than 1 liters?

A

bigger

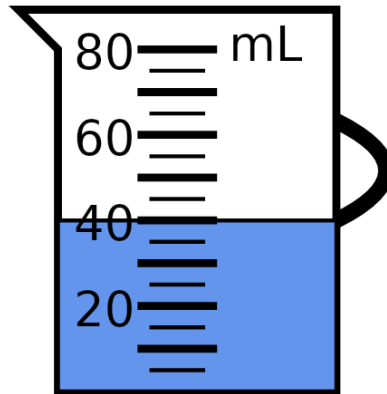
B

smaller



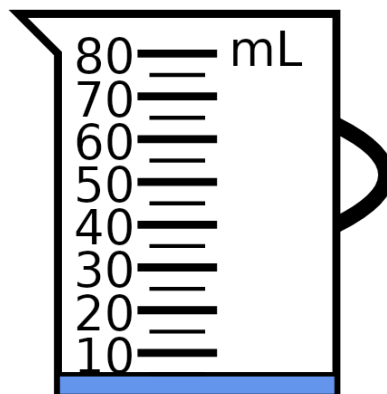
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22 Measure the volume of water in the measuring cup

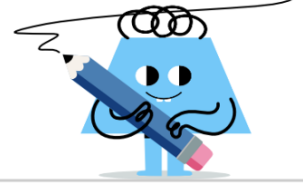


A	20 mL	B	55 mL
C	40 mL	D	35 mL
E	50 mL	F	60 mL

23 Measure the volume of water in the measuring cup

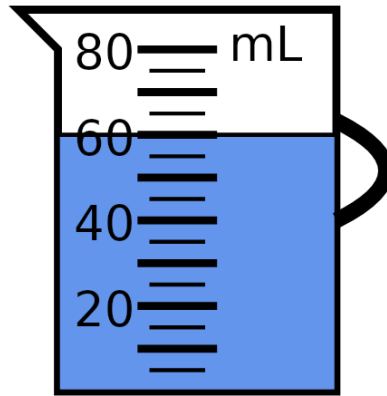


A	5 mL	B	25 mL
C	0 mL	D	15 mL
E	30 mL	F	10 mL



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24 Measure the volume of water in the measuring cup



A 60 mL

B 55 mL

C 30 mL

D 35 mL

E 85 mL

F 80 mL

25 Is the given item lighter or heavier than the measurement

Is mass of a tennis ball lighter or heavier than 56 milligrams?

A heavier

B lighter

26 Is the given item colder or hotter than the measurement

Is temperature of the human body colder or hotter than 67 degrees celsius?

A hotter

B colder

27 Is the given item shorter or longer than the measurement

Is time for a plane flight from New York to Paris shorter or longer than 7 minutes?

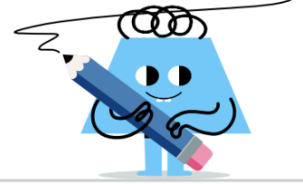
A shorter

B longer

28 Use the mnemonic 'King Henry Died by Drinking Chocolate Milk' to remember the missing prefix

King	kilo	1000
Henry	hecto	100
Died	deca	10
by	?	1
Drinking	deci	0.1
Chocolate	centi	0.01
Milk	milli	0.001

A deci	B milli
C hecto	D (base)
E kilo	F centi



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29 Each prefix in the mnemonic 'King Henry Died by Drinking Chocolate Milk' is 10x smaller. What is the missing factor?

A	B	C
1,000	10	0.001
D	E	F
0.1	0.01	1

King kilo 1000
Henry hecto 100
Died deca 10
by (base) 1
Drinking deci 0.1
Chocolate centi 0.01
Milk milli ?

30 What is the abbreviation for 'kilo'?

A	B
d	k
C	D
m	(base)
E	F
da	c

kilo ? 1000 10^3
hecto h 100 10^2
deca da 10 10^1
(base) 1 10^0
deci d 0.1 10^{-1}
centi c 0.01 10^{-2}
milli m 0.001 10^{-3}

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

A	B
deci	kilo
C	D
(base)	deca
E	F
milli	hecto

kilo k 1000 10^3
hecto h 100 10^2
deca da 10 10^1
(base) 1 10^0
deci d 0.1 10^{-1}
centi c 0.01 10^{-2}
? m 0.001 10^{-3}

32 What is the multiplication factor for 'kilo'?

A	B	C
1	0.001	0.01
D	E	F
10	100	1,000

kilo k ? 10^3
hecto h 100 10^2
deca da 10 10^1
(base) 1 10^0
deci d 0.1 10^{-1}
centi c 0.01 10^{-2}
milli m 0.001 10^{-3}

33 What is the abbreviation for this prefix?

deci

A	B	C
m	da	c
D	E	F
k	d	h

34 What is the multiplication factor for this prefix?

deci

A	B	C
100	1	0.001
D	E	F
0.1	0.01	1,000

35 What is the prefix for this abbreviation?

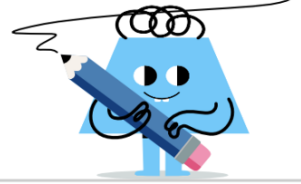
h (ie hg, hm)

A	B	C
hecto	kilo	milli
D	E	F
deci	deca	centi

36 Each prefix in the mnemonic 'King Henry Died by Drinking Chocolate Milk' is 10x smaller. What is the missing exponent?

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

King kilo ?
Henry hecto 10^2
Died deca 10^1
by (base) 10^0
Drinking deci 10^{-1}
Chocolate centi 10^{-2}
Milk milli 10^{-3}

**Measurement - Units Intro - Metric****37** What is the power of 10 for this prefix?**kilo**

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

38 What is the multiplication factor for this abbreviation?**c (ie cg, cm)**

A	1,000	B	100	C	1
D	0.001	E	0.1	F	0.01

39 Which unit is larger**'h' (ie hg) or 'k' (ie kg)**

A		B	
	k		h

40 What is the abbreviation for this multiplication factor?**0.01**

A	da	B	h
C	c	D	(base)
E	m	F	k

41 What is the prefix for this multiplication factor?**1**

A	milli	B	deca
C	centi	D	kilo
E	hecto	F	(base)

42 Which prefix is larger**'kilo' or 'hecto'**

A		B	
	kilo		hecto

43 Convert this value to centimeters**0.01 m**

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

44 Which unit is smaller**'d' (ie dg) or '(base)' (ie g)**

A		B	
	(base)		d

**Measurement - Units Intro - Metric****45** Convert this value to liters**1 kl**

A 100 l	B 1,000 l
C 100,000 l	D 10,000 l
E 1,000,000 l	F 10 l

46 Which prefix is smaller**'(base)' or 'deci'**

A (base)	B deci
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47 Convert this value to kilograms**1,000 g**

A 1,000 kg	B 100 kg
C 1 kg	D 0.1 kg
E 0.001 kg	F 0.01 kg

48 What is the power of 10 for this abbreviation?**c (ie cg, cm)**

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

49 Convert this value to meters**1 hm**

A 1,000 m	B 100,000 m
C 10,000 m	D 0.1 m
E 100 m	F 10 m

50 What is the power of 10 for this multiplication factor?**0.001**

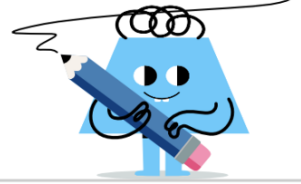
A 10^2	B 10^{-2}
C 10^3	D 10^0
E 10^{-3}	F 10^1

51 What is the abbreviation for this power of 10? 10^{-3}

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

52 Convert this value to liters**1 dl**

A 0.1 l	B 0.0001 l
C 100 l	D 0.001 l
E 10 l	F 1 l

**Measurement - Units Intro - Metric****53** Convert this value to decigrams**0.1 g**

A 100 dg	B 1,000 dg
C 1 dg	D 10 dg
E 0.001 dg	F 0.01 dg

54 What is the prefix for this power of 10^3

A kilo	B deca
C centi	D milli
E deci	F (base)

55 What is the multiplication factor for this power of 10^0

A 100	B 10	C 0.01
D 0.001	E 1,000	F 1

56 Convert this value to millimeters**1 hm**

A 100,000 mm	B 10,000,000 mm
C 100 mm	D 1,000,000 mm
E 100,000,000 mm	F 1,000 mm

57 Convert this value to milliliters**1 kl**

A 1,000 ml	B 10,000,000 ml
C 100,000 ml	D 1,000,000 ml
E 100,000,000 ml	F 10,000 ml

58 Convert this value to milligrams**1 g**

A 100 mg	B 10 mg
C 10,000 mg	D 1,000,000 mg
E 1,000 mg	F 100,000 mg

59 Convert this value to decameters**1 mm**

A 0.001 dam	B 0.1 dam
C 0.00001 dam	D 0.0000001 dam
E 0.000001 dam	F 0.0001 dam

60 Convert this value to decaliters**1 cl**

A 0.1 dal	B 0.001 dal
C 0.01 dal	D 0.0001 dal
E 1 dal	F 0.000001 dal

**Measurement - Units Intro - Metric****61** Convert this value to hectograms**1 dg**

A 0.0001 hg	B 0.001 hg
C 0.000001 hg	D 0.01 hg
E 0.1 hg	F 1 hg

62 Convert this value to hectometers**1 km**

A 1 hm	B 10 hm
C 0.1 hm	D 0.01 hm
E 1,000 hm	F 100 hm

63 Convert this value to kiloliters**1 dal**

A 0.001 kl	B 0.0001 kl
C 10 kl	D 0.00001 kl
E 0.01 kl	F 0.1 kl

64 Convert this value to hectograms**100,000 mg**

A 1,000 hg	B 1 hg
C 0.01 hg	D 10 hg
E 0.001 hg	F 0.1 hg

65 Multiply these numbers **1.1×10**

A 11	B 110	C 1.1
D 1,100	E 0.1	

66 Multiply these numbers **1.1×10**

A 1,100	B 11	C 1.1
D 0.1	E 110	

67 Convert this scientific notation number to regular notation **1×10^{-3}**

A 0.0001	B 0.01
C 0.1	D 0.001

68 Convert this scientific notation number to regular notation **3×10^0**

A 300	B 3
C 0.3	D 30

**Measurement - Units Intro - Metric**

69 Convert this scientific notation number to regular notation

$$9 \times 10^{-5}$$

A	0.009	B	0.0009
C	0.000009	D	0.00009

70 Convert this scientific notation number to regular notation

$$3 \times 10^5$$

A	300,000	B	30,000,000
C	30,000	D	3,000,000

71 Convert this number to scientific notation

3,000

A	3×10^2	B	3×10^4
C	30×10^3	D	3×10^5
E	3×10^3	F	0×10^3

72 Convert this number to scientific notation

0.001

A	1×10^{-1}	B	1×10^{-3}
C	1×10^{-4}	D	10×10^{-3}
E	1×10^{-2}	F	0×10^{-3}

73 Convert this number to scientific notation

700,000

A	70×10^5	B	7×10^7
C	7×10^6	D	7×10^5
E	1×10^5	F	7×10^4

74 Convert this number to scientific notation

0.02

A	20×10^{-2}	B	2×10^{-3}
C	2×10^{-1}	D	0×10^{-2}
E	2×10^{-2}		

75 Convert this scientific notation number to regular notation

$$3.7 \times 10^2$$

A	37	B	3,700
C	37,000	D	370

76 Convert this scientific notation number to regular notation

$$5.1 \times 10^{-3}$$

A	0.0051	B	0.051
C	0.51	D	0.00051



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77 Convert this scientific notation number to regular notation

$$3.6 \times 10^2$$

A 3,600

B 360

C 36,000

D 36

78 Convert this scientific notation number to regular notation

$$5.3 \times 10^{-4}$$

A 0.0053

B 0.00053

C 0.000053

79 Convert this number to scientific notation

0.039

A 0.4×10^{-2}

B 3.9×10^0

C 3.9×10^{-2}

D 3.9×10^{-1}

E 3.9×10^{-3}

F 39.0×10^{-2}

80 Convert this number to scientific notation

8.9

A 8.9×10^2

B 8.9×10^{-1}

C 0.9×10^0

D 8.9×10^0

E 8.9×10^1