

Name: CALVIN
 Date:
 Hour:

Conversions Practice

Celsius to Kelvin (C to K) Add 273
Kelvin to Celsius (K to C) Subtract 273
(hint think of alphabet for both)

Kids Have **D**ropped over **d**ead **c**onverting **m**etrics
 Drag the decimal, X marks the spot, fill in the zeros
Factor label ~ follow the units! (or the yellow brick road)
Don't worry about putting in ANY numbers until the end

Conversions

UNITS! Numbers with a (*) must done factor label!

Practice: 3.50 ft → inches

- 1) 100 cm → m
- 2) 1.027 L → cL
- 3) 100 m → km
- 4) 0.5 L → mL
- 5) 10 kg → mg
- *6) 100 cm → m

Handwritten conversion boxes and a diagram:

- 1 m
- 102.7 cL
- 0.100 km
- 500 mL
- 10,000,000 mg

Diagram: $\frac{100 \text{ cm}}{100 \text{ cm}} = 1 \text{ m}$

* 7) 1.5 hours → minutes

$\frac{1.5 \text{ h} \times 60 \text{ min}}{1 \text{ h}} = 90 \text{ min.}$

8) 275 g → kg

0.275 kg

9) 0.04 kg → cg

4,000 cg

*10) 2 dg → mg (hint: use two steps)

$\frac{2 \text{ dg} \times 1 \text{ g} \times 1000 \text{ mg}}{10 \text{ dg} \times 1 \text{ g}} = 200 \text{ mg}$

11) 0.000125 km → cm

12.5 cm

12) 7,600 mL → L

7.6 L

13) 3,003 mm → dm

0.03003 dm

Place value chart with columns: K, H, D, ^ML, o, d, c, m

1) $\frac{100 \text{ cm}}{100 \text{ cm}} = 1 \text{ m}$

2) $\frac{1.027 \text{ L}}{100 \text{ cL}} = 0.01027 \text{ cL}$

3) $\frac{100 \text{ m}}{1000 \text{ km}} = 0.1 \text{ km}$

4) $\frac{0.5 \text{ L}}{1000 \text{ mL}} = 500 \text{ mL}$

5) $\frac{10 \text{ kg}}{1000000 \text{ mg}} = 10,000,000 \text{ mg}$

6) $\frac{100 \text{ cm}}{100 \text{ cm}} = 1 \text{ m}$

7) $\frac{1.5 \text{ h} \times 60 \text{ min}}{1 \text{ h}} = 90 \text{ min.}$

8) $\frac{275 \text{ g}}{1000 \text{ kg}} = 0.275 \text{ kg}$

9) $\frac{0.04 \text{ kg} \times 100000 \text{ cg}}{1 \text{ kg}} = 4,000 \text{ cg}$

10) $\frac{2 \text{ dg} \times 1 \text{ g} \times 1000 \text{ mg}}{10 \text{ dg} \times 1 \text{ g}} = 200 \text{ mg}$

11) $\frac{0.000125 \text{ km} \times 100000 \text{ cm}}{1 \text{ km}} = 12.5 \text{ cm}$

12) $\frac{7600 \text{ mL}}{1000 \text{ L}} = 7.6 \text{ L}$

13) $\frac{3003 \text{ mm}}{100 \text{ dm}} = 0.03003 \text{ dm}$

14) Simple algebra practice (use the arrow method)

* You are **DONE** when circled variable is:

a) On TOP (in numerator)

AND

b) By itself (compared to = sign)

a)

$$\frac{D}{1} = \frac{M}{V} \quad \text{circled } M = D \cdot V$$

b)

$$PV = nRT \quad \text{circled } n = \frac{PV}{RT}$$

c)

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2} \quad \text{circled } T_2 = \frac{P_2 V_2 T_1}{P_1 V_1}$$

Factor label

Convert 25 m/s → miles per hour

$$\frac{25 \cancel{\text{m}}}{\cancel{\text{s}}} \cdot \frac{1 \cancel{\text{km}}}{1000 \cancel{\text{m}}} \cdot \frac{1 \text{ miles}}{1.61 \cancel{\text{km}}} \cdot \frac{60 \cancel{\text{s}}}{1 \cancel{\text{min}}} \cdot \frac{60 \cancel{\text{min}}}{1 \text{ h}} = \boxed{55.9 \frac{\text{miles}}{\text{h}}}$$

GO VIKINGS!!!