

How many kg in a ton: the three tons, and the mass conversion chart

Name	Defined as	In kilograms	Where it is used
Metric ton (tonne, t)	1,000 kg exactly	1,000 kg	UK, Australia, NZ, Canada, India, EU, all science
Short ton (US ton)	2,000 lb	907.18 kg	United States
Long ton (imperial ton)	2,240 lb	1,016.05 kg	old British unit; ships' displacement

In a British, Australian, Canadian or Indian classroom a ton is the tonne, 1,000 kg; exam papers write tonne or t. In an American classroom a ton is 2,000 lb. Factors from NIST SP 811 Appendix B; the pound is exactly 0.45359237 kg.

Metric: each step is a thousand

Unit	Symbol	Equals	The move
1 tonne	t	1,000 kg = 1,000,000 g	t to kg: x 1,000 (2.4 t = 2,400 kg); kg to t: / 1,000 (650 kg = 0.65 t)
1 kilogram	kg	1,000 g = 1,000,000 mg	kg to g: x 1,000 (3.2 kg = 3,200 g); g to kg: / 1,000 (450 g = 0.45 kg)
1 gram	g	1,000 mg	g to mg: x 1,000 (0.5 g = 500 mg)
1 milligram	mg	1,000 micrograms	
1 quintal (India)	q	100 kg; 10 quintals = 1 tonne	

Imperial and US: ounce to ton

Unit	Equals	In metric
1 ounce (oz)	1/16 lb	28.35 g
1 pound (lb)	16 oz	453.59 g = 0.4536 kg
1 stone (st)	14 lb	6.35 kg
1 hundredweight, US (cwt)	100 lb	45.36 kg
1 hundredweight, UK (cwt)	112 lb = 8 stone	50.80 kg
1 short ton (US)	2,000 lb	907.18 kg
1 long ton (UK)	2,240 lb = 160 stone	1,016.05 kg

Between the systems: the one number is 1 kg = 2.2 lb

[] kg to lb: x 2.2 (25 kg of luggage = 55 lb). lb to kg: / 2.2 or x 0.454 (150 lb = 68 kg)

[] Short tons to tonnes: x 0.907. Tonnes to short tons: x 1.102. Long tons to tonnes: x 1.016

[] Ounces to grams: x 28.35 (4 oz = 113 g). Stone to kg: x 6.35 (11 st 4 lb = 158 lb = 71.7 kg). kg to stone: / 6.35 (80 kg = 12 st 8 lb)

From

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ms-kilograms-tonnes-pounds-ounces-and-stone/ · 1-on-1 online maths and science, KS2 to GCSE, Grades 3 to 8, free 30-minute first class.

Which ton where, where it sits in school, and a practice set

Country	A ton in everyday speech	In school
UK	the tonne (long ton only for ships)	tonne; Year 5 and 6 convert g, kg, t with decimals; pounds and ounces recognised
Australia, NZ, Canada	the tonne	tonne; Years 5 and 6 convert metric units
India	the tonne, also metric ton	tonne and quintal; CBSE Class 4 to 7
USA	the short ton, 2,000 lb	oz, lb, ton in Grades 4 and 5 (4.MD.1, 5.MD.1); metric in science

Worked example

A lorry may carry 3.5 tonnes. It is loaded with 1,800 kg of sand and 1,250 kg of gravel. $1,800 + 1,250 = 3,050 \text{ kg} = 3.05 \text{ t}$. $3.5 - 3.05 = 0.45 \text{ t} = 450 \text{ kg}$ of capacity left.

Practice

- How many kilograms are in 2.5 tonnes? In 0.4 tonnes?
- A bag of rice is 5 kg. How many bags make a tonne?
- An elephant weighs 5,400 kg. How many tonnes is that? Roughly how many US short tons?
- A parcel weighs 2 lb 8 oz. What is that in kilograms?
- A man weighs 13 stone 2 lb. What is that in pounds, and in kilograms?
- Which is heavier, 1 long ton or 1 tonne? By how many kilograms?
- Write 3,250 g in kilograms, and 0.08 kg in grams.
- A farmer sells 24 quintals of wheat. How many tonnes is that?

Answers

1. 2,500 kg; 400 kg. 2. 200 bags. 3. 5.4 t; about 6 short tons (5,400 / 907). 4. $2.5 \text{ lb} \times 0.4536 = 1.13 \text{ kg}$. 5. 184 lb; 83.5 kg. 6. The long ton, by about 16 kg (1,016 - 1,000). 7. 3.25 kg; 80 g. 8. 2.4 tonnes.

Your own conversions

Amount and unit: _____

Target unit: _____

Multiply or divide, by what: _____

Answer: _____

Check (bigger unit, smaller number?): _____