

WORKSHEET Grades 6-8 · ages 11-14

Metric conversions

Decimals, mixed units, area and volume. Show every step.



Name _____ Date _____ Class _____ Score _____ / 27

HOW TO CONVERT

Metric to metric: count staircase steps. US and metric: multiply by the factor from the chart, then round only the final answer.

Example: $12 \text{ in} \times \frac{2.54 \text{ cm}}{1 \text{ in}} = 30.48 \text{ cm}$

HANDY FACTS

1 in = 2.54 cm · 1 ft = 0.3048 m · 1 mi = 1.609344 km

1 oz = 28.349523125 g · 1 lb = 0.45359237 kg

1 gal = 3.785411784 L · 1 cup = 236.5882365 mL

ROUNDING RULE Round your final answer to the nearest tenth (one decimal place). Use the exact factors on the chart; do not round them first.

A

Metric decimals

Convert. Move the decimal point the right way.

- | | | | |
|---|--------------------|---|--------------------|
| 1 | 11.79 L = _____ mL | 2 | 75.4 kg = _____ g |
| 3 | 71.9 mL = _____ L | 4 | 21.3 g = _____ mg |
| 5 | 898 mm = _____ m | 6 | 59.28 m = _____ mm |

B

US customary and metric

Multiply by the conversion factor. Round to the nearest tenth.

- | | | | |
|----|----------------------|----|------------------|
| 7 | 26 mi = _____ km | 8 | 10 km = _____ mi |
| 9 | 50 m = _____ ft | 10 | 15 gal = _____ L |
| 11 | 50 yd = _____ m | 12 | 750 g = _____ oz |
| 13 | 50 L = _____ gal | 14 | 10 kg = _____ lb |
| 15 | 500 mL = _____ fl oz | 16 | 25 cm = _____ in |

C

Temperature

 $^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times 5/9$ and $^{\circ}\text{F} = ^{\circ}\text{C} \times 9/5 + 32$

- | | | | |
|----|---|----|---|
| 17 | -10 $^{\circ}\text{C}$ = _____ $^{\circ}\text{F}$ | 18 | 68 $^{\circ}\text{F}$ = _____ $^{\circ}\text{C}$ |
| 19 | 59 $^{\circ}\text{F}$ = _____ $^{\circ}\text{C}$ | 20 | 104 $^{\circ}\text{F}$ = _____ $^{\circ}\text{C}$ |

**Mixed units**

Convert first, then add or subtract.

21 $1.5 \text{ L} + 600 \text{ mL} =$ _____ mL 22 $3.4 \text{ km} + 250 \text{ m} =$ _____ m

23 $1.5 \text{ kg} - 250 \text{ g} =$ _____ g

**Word problems**

Show your work in the box, then write the answer.

- 24 Omar's fence is 12 feet long. How many meters is that? Round to the nearest tenth.

WORK

Answer _____ m

- 25 A tank holds 5 L. After 750 mL is used, how many liters are left?

WORK

Answer _____ L

- 26 A bag of flour has a mass of 5 pounds. What is its mass in kilograms? Round to the nearest tenth.

WORK

Answer _____ kg

- 27 Sam hikes 5.9 km. How many meters is that?

WORK

Answer _____ m