

Converting between units

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Worked example

Convert 3.54 kilometres into:
metres

centimetres

millimetres

Your turn

Convert 5.3 kilometres into:
metres

$$5.3 \text{ km} = 5300 \text{ m}$$

centimetres

$$5.3 \text{ km} = 530000 \text{ cm}$$

millimetres

$$5.3 \text{ km} = 5300000 \text{ mm}$$

Worked example

Convert 3.54 metres into:
kilometres

centimetres

millimetres

Your turn

Convert 5.3 metres into:
kilometres

$$5.3 \text{ m} = 0.0053 \text{ km}$$

centimetres

$$5.3 \text{ m} = 530 \text{ cm}$$

millimetres

$$5.3 \text{ m} = 5300 \text{ mm}$$

Worked example

Convert 3.54 centimetres into:
kilometres

metres

millimetres

Your turn

Convert 5.3 centimetres into:
kilometres

$$5.3 \text{ cm} = 0.000053 \text{ km}$$

metres

$$5.3 \text{ cm} = 0.053 \text{ m}$$

millimetres

$$5.3 \text{ cm} = 53 \text{ mm}$$

Worked example

Convert 3.54 millimetres into:
kilometres

metres

centimetres

Your turn

Convert 5.3 millimetres into:
kilometres

$$5.3 \text{ mm} = 0.0000053 \text{ km}$$

metres

$$5.3 \text{ mm} = 0.0053 \text{ m}$$

centimetres

$$5.3 \text{ mm} = 0.53 \text{ cm}$$

Worked example

Convert 3.54 square kilometres
into:

square metres

square centimetres

square millimetres

Your turn

Convert 5.3 square kilometres
into:

square metres

$$5.3 \text{ km}^2 = 5300000 \text{ m}^2$$

square centimetres

$$5.3 \text{ km}^2 = 53000000000 \text{ cm}^2$$

square millimetres

$$5.3 \text{ km}^2 = 53000000000000 \text{ mm}^2$$

Worked example

Convert 3.54 square metres into:
square kilometres

square centimetres

square millimetres

Your turn

Convert 5.3 square metres into:
square kilometres

$$5.3 \, m^2 = 0.0000053 \, km^2$$

square centimetres

$$5.3 \, m^2 = 53000 \, cm^2$$

square millimetres

$$5.3 \, m^2 = 5300000 \, mm^2$$

Worked example

Convert 3.54 square centimetres into:

square kilometres

square metres

square millimetres

Your turn

Convert 5.3 square centimetres into:

square kilometres

$$5.3 \text{ cm}^2 = 0.00000000053 \text{ km}^2$$

square metres

$$5.3 \text{ cm}^2 = 0.00053 \text{ m}^2$$

square millimetres

$$5.3 \text{ cm}^2 = 530 \text{ mm}^2$$

Worked example

Convert 3.54 square millimetres
into:

square kilometres

square metres

square centimetres

Your turn

Convert 5.3 square millimetres
into:

square kilometres

$$5.3 \text{ mm}^2 = 0.00000000000053 \text{ km}^2$$

square metres

$$5.3 \text{ mm}^2 = 0.0000053 \text{ m}^2$$

square centimetres

$$5.3 \text{ mm}^2 = 0.053 \text{ cm}^2$$

Worked example

Convert 3.54 cubic kilometres
into:

cubic metres

Your turn

Convert 5.3 cubic kilometres
into:

cubic metres

$$5.3 \text{ km}^3 = 5300000000 \text{ m}^3$$

Worked example

Convert 3.54 cubic metres into:
cubic kilometres

Your turn

Convert 5.3 cubic metres into:
cubic kilometres

$$5.3 \, m^3 = 0.0000000053 \, km^3$$

Worked example

Convert 3.54 litres into:
millilitres

centilitres

cubic centimetres

Your turn

Convert 5.3 litres into:
millilitres

$$5.3 \text{ l} = 5300 \text{ ml}$$

centilitres

$$5.3 \text{ l} = 530 \text{ cl}$$

cubic centimetres

$$5.3 \text{ l} = 5300 \text{ cm}^3$$

Worked example

Convert 3.54 centilitres into:
millilitres

litres

cubic centimetres

Your turn

Convert 5.3 centilitres into:
millilitres

$$5.3 \text{ cl} = 53 \text{ ml}$$

litres

$$5.3 \text{ cl} = 0.053 \text{ l}$$

cubic centimetres

$$5.3 \text{ cl} = 53 \text{ cm}^3$$

Worked example

Convert 3.54 millilitres into:
litres

centilitres

cubic centimetres

Your turn

Convert 5.3 millilitres into:
litres

$$5.3 \text{ ml} = 0.0053 \text{ l}$$

centilitres

$$5.3 \text{ ml} = 0.53 \text{ cl}$$

cubic centimetres

$$5.3 \text{ ml} = 5.3 \text{ cm}^3$$

Worked example

Convert 3.54 cubic centimetres
into:

litres

centilitres

millilitres

Your turn

Convert 5.3 cubic centimetres
into:

litres

$$5.3 \text{ cm}^3 = 0.0053 \text{ l}$$

centilitres

$$5.3 \text{ cm}^3 = 0.53 \text{ cl}$$

millilitres

$$5.3 \text{ cm}^3 = 5.3 \text{ ml}$$

Worked example

Convert 3.54 kilograms into:
grams

milligrams

Your turn

Convert 5.3 kilograms into:
Grams

$$5.3 \text{ kg} = 5300 \text{ g}$$

milligrams

$$5.3 \text{ kg} = 5300000 \text{ mg}$$

Worked example

Convert 3.54 grams into:
kilograms

milligrams

Your turn

Convert 5.3 grams into:
kilograms

$$5.3 \text{ g} = 0.0053 \text{ kg}$$

milligrams

$$5.3 \text{ g} = 5300000 \text{ mg}$$

Worked example

Convert 3.54 milligrams into:
kilograms

grams

Your turn

Convert 5.3 milligrams into:
kilograms

$$5.3 \text{ mg} = 0.0000053 \text{ kg}$$

grams

$$5.3 \text{ mg} = 0.0053 \text{ g}$$

Worked example

Convert 3.54 tonnes into:
kilograms

grams

Your turn

Convert 5.3 tonnes into:
kilograms

$$5.3 \text{ t} = 5300 \text{ kg}$$

grams

$$5.3 \text{ t} = 5300000 \text{ g}$$

Worked example

Convert 3.54 kilograms into:
tonnes

grams

Your turn

Convert 5.3 kilograms into:
tonnes

$$5.3 \text{ kg} = 0.0053 \text{ t}$$

grams

$$5.3 \text{ kg} = 5300 \text{ g}$$

Worked example

Convert 3.54 grams into:
tonnes

kilograms

Your turn

Convert 5.3 grams into:
tonnes

$$5.3 \text{ g} = 0.0000053 \text{ t}$$

kilograms

$$5.3 \text{ g} = 0.0053 \text{ kg}$$

Worked example

Convert:

250 kilometres per hour to a speed in metres per second.

500 kilometres per hour to a speed in metres per second.

Your turn

Convert:

750 kilometres per hour to a speed in metres per second.

208 m/s

Worked example

Convert:

3600 metres per second to a
speed in kilometres per hour

5400 metres per second to a
speed in kilometres per hour

Your turn

Convert:

7200 metres per second to a
speed in kilometres per hour

0.002 km/h