



GRADE 5 · MEASUREMENT & DATA · PRACTICE

CONVERTING UNITS WITHIN A SYSTEM

Today's goal: I can convert among different-sized standard measurement units within a system.

Pick your peppers!

Everyone does Mild & Medium. Then climb as high as you can.

**Mild**

Tan the Turtle

**Medium**

Digit the Fox

**Spicy**

Blaze the Dragon

**Extra Spicy**

Pi the Owl

WATCH MR DJ SOLVE

Convert to the bigger unit: 3000 m to km, 1500 g to kg, 250 ml to l, 6 mm to cm.

- 1 Each goes to a bigger unit, so each number gets smaller.
- 2 $3000 \div 1000 = 3$ km. $1500 \div 1000 = 1.5$ kg. $250 \div 1000 = 0.25$ l. $6 \div 10 = 0.6$ cm.
- 3 Note the last one uses 10, not 1000 — there are 10 mm in a cm.

Answer: 3 km, 1.5 kg, 0.25 l, 0.6 cm



REMEMBER

The measurement stays the same; the unit changes. Smaller unit, bigger number. For decimals the digits move. Convert before adding or subtracting.

**MILD****Tan the Turtle:** Slow and steady. Warm up!

- 1 Convert to the smaller unit: 3 km to m, 2 kg to g, 4 l to ml, 0.75 kg to g.

Answer



OOPS ALERT

Careful on #1! The slip Mr DJ sees most: Answered 0.75000 g for the last — zeros appended. It is the same amount as 0.75, so it is still less than a gram rather than 750 of them.

**MEDIUM****Digit the Fox:** Stretch your brain.

- 2 Convert 2.5 km to metres, and then to centimetres.

Answer

- 3 Work out $1\text{ kg } 250\text{ g} + 750\text{ g}$, in grams and in kilograms.

Answer

- 4 A recipe needs 0.4 l of milk. You have a 250 ml jug. How many jugs, and is there any left over?

Answer

**SPICY****Blaze the Dragon:** Bring the heat!

- 5 A child converts 2.5 km to metres by writing 2.5000. Explain why this converts nothing.

Answer

- 6 Order these smallest first: 0.5 m, 45 cm, 480 mm, 0.05 km.

Answer

- 7 Why does the number get bigger when the unit gets smaller? Explain using a measurement that does not change.

Answer



EXTRA SPICY

Pi the Owl: Big-brain challenge.

- 8 Why is “within a system” part of this skill? What is different about converting metres to feet?

Answer



How did this sheet feel?



Easy for me



Just right



Made me think

Stuck? Watch Mr DJ explain it

Step-by-step video lessons on YouTube: [youtube.com/
@MathWithMrDJ](https://www.youtube.com/@MathWithMrDJ)

Brain break: daily puzzles

Three new math puzzles every day, free:
puzzles.mathwithmrdj.com