

**GRAYS TUITION CENTRE – Online Tutoring****WEEK: 3****Week Beginning: (04/01/2021)****Subject: MATHS****Year: 5****Lesson Objective:**

- Understanding the metric order and know when to use which
- Be able to convert between mm to cm, cm to m and m to km
- Be able to convert between g to kg, ml to L
- Going beyond to learn about inch, gallons and miles

**Class Worksheets**

- Warm up on metrics – memorising sheet
- Questions testing ability to convert different units

**Homework**

- Metric homework questions – testing ability to do conversions that require multiple steps

**Additional Notes**

- All lesson worksheets and **homework for next week (due Week 4)** worksheets can be found below
- Week 2 homework will be marked in lesson

<p><b>UNITS OF LENGTH IN THE U.S. SYSTEM</b></p> <p>1 foot (ft) = 12 inches (in)  1 yard (yd) = 3 feet (ft)  1 yard (yd) = 36 inches (in)  1 mile (mi) = 5,280 feet (ft)</p>	<p><b>UNITS OF LENGTH IN THE METRIC SYSTEM</b></p> <p>1,000 millimeters (mm) = 1 meter  100 centimeters (cm) = 1 meter  10 decimeters (dm) = 1 meter  1 dekameter (dam) = 10 meters  1 hectometer (hm) = 100 meters  1 kilometer (km) = 1000 meters</p>	<p><b>SYSTEM TO SYSTEM CONVERSIONS FOR LENGTH</b></p> <p>1 inch = 2.54 centimeters  1 meter <math>\approx</math> 3.28 feet  1 mile <math>\approx</math> 1.61 km  1 foot <math>\approx</math> 0.30 meters (m)  1 yard <math>\approx</math> 0.91 meters  1 km <math>\approx</math> 0.62 mi</p>
<p><b>UNITS OF WEIGHT IN THE U.S. SYSTEM</b></p> <p>1 pound (lb) = 16 ounces (oz)  1 ton (T) = 2,000 pounds (lb)</p>	<p><b>UNITS OF WEIGHT IN THE METRIC SYSTEM</b></p> <p>1 gram <math>\approx</math> the weight of a paper clip  1 gram <math>\approx</math> the weight of a raisin  1 gram = 1,000 milligrams (mg)  1 gram = 100 centigrams (cg)  1 kilogram (kg) = 1,000 grams  1 metric ton (t) = 1,000 kilograms</p>	<p><b>SYSTEM TO SYSTEM CONVERSIONS FOR WEIGHT</b></p> <p>1 ounce <math>\approx</math> 28.3 grams  1 pound <math>\approx</math> 0.45 kg</p>

## Measuring Units Worksheet

Convert.

**1 a.** 6 cm = \_\_\_\_\_ mm

**1 b.** 9 cm = \_\_\_\_\_ mm

**2 a.** 50 mm = \_\_\_\_\_ cm

**2 b.** 100 mm = \_\_\_\_\_ cm

**3 a.** 1 cm = \_\_\_\_\_ mm

**3 b.** 8 cm = \_\_\_\_\_ mm

**4 a.** 70 mm = \_\_\_\_\_ cm

**4 b.** 30 mm = \_\_\_\_\_ cm

**5 a.** 40 mm = \_\_\_\_\_ cm

**5 b.** 20 mm = \_\_\_\_\_ cm

**6 a.** 50 mm = \_\_\_\_\_ cm

**6 b.** 60 mm = \_\_\_\_\_ cm

**7 a.** 80 mm = \_\_\_\_\_ cm

**7 b.** 20 mm = \_\_\_\_\_ cm

**1 a.** 1 km = \_\_\_\_\_ m

**1 b.** 10,000 m = \_\_\_\_\_ km

**2 a.** 4,000 m = \_\_\_\_\_ km

**2 b.** 2 km = \_\_\_\_\_ m

**3 a.** 7 km = \_\_\_\_\_ m

**3 b.** 5,000 m = \_\_\_\_\_ km

**4 a.** 3 km = \_\_\_\_\_ m

**4 b.** 8 km = \_\_\_\_\_ m

**5 a.** 9,000 m = \_\_\_\_\_ km

**5 b.** 6 km = \_\_\_\_\_ m

**6 a.** 5,000 m = \_\_\_\_\_ km

**6 b.** 10,000 m = \_\_\_\_\_ km

**7 a.** 8 km = \_\_\_\_\_ m

**7 b.** 7 km = \_\_\_\_\_ m

**8 a.** 1,000 m = \_\_\_\_\_ km

**8 b.** 10,000 m = \_\_\_\_\_ km

**9 a.** 5,000 m = \_\_\_\_\_ km

**9 b.** 3 km = \_\_\_\_\_ m

1 a. 7 cm = \_\_\_\_\_ mm

1 b. 50 mm = \_\_\_\_\_ cm

2 a. 400 cm = \_\_\_\_\_ m

2 b. 1 m = \_\_\_\_\_ cm

3 a. 1000 cm = \_\_\_\_\_ m

3 b. 700 cm = \_\_\_\_\_ m

4 a. 30 mm = \_\_\_\_\_ cm

4 b. 20 mm = \_\_\_\_\_ cm

5 a. 10 mm = \_\_\_\_\_ cm

5 b. 8 cm = \_\_\_\_\_ mm

6 a. 6 m = \_\_\_\_\_ cm

6 b. 5 m = \_\_\_\_\_ cm

7 a. 2 m = \_\_\_\_\_ cm

7 b. 800 cm = \_\_\_\_\_ m

8 a. 9 m = \_\_\_\_\_ cm

8 b. 3 m = \_\_\_\_\_ cm

9 a. 90 mm = \_\_\_\_\_ cm

9 b. 10 cm = \_\_\_\_\_ mm

**1 a.**  $10,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

**1 b.**  $5,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

**2 a.**  $3 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

**2 b.**  $2,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

**3 a.**  $6,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

**3 b.**  $7,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

**4 a.**  $9 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

**4 b.**  $1 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

**5 a.**  $8 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

**5 b.**  $4 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

**6 a.**  $1 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

**6 b.**  $3 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

**7 a.**  $7 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

**7 b.**  $6,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

**8 a.**  $2 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

**8 b.**  $3,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

**9 a.**  $4,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

**9 b.**  $10,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

## Challenging questions:

## 1. Convert the following imperial measurements:

a) 42 inches to feet

d) 5 miles to yards

b) 84 inches to yards and feet

e) 6 feet to inches

c) 96 inches to yards

f) 1.2 yards to inches



1 a. 465 mm = \_\_\_\_ cm \_\_\_\_ mm

1 b. 773 mm = \_\_\_\_ cm \_\_\_\_ mm

2 a. 594 mm = \_\_\_\_ cm \_\_\_\_ mm

2 b. 29 cm 1 mm = \_\_\_\_\_ mm

3 a. 8 cm 9 mm = \_\_\_\_\_ mm

3 b. 133 mm = \_\_\_\_ cm \_\_\_\_ mm

4 a. 173 mm = \_\_\_\_ cm \_\_\_\_ mm

4 b. 89 cm 2 mm = \_\_\_\_\_ mm

5 a. 34 cm 6 mm = \_\_\_\_\_ mm

5 b. 256 cm = \_\_\_\_ m \_\_\_\_ cm

6 a. 850 mm = \_\_\_\_ cm \_\_\_\_ mm

6 b. 7 m 62 cm = \_\_\_\_\_ cm

7 a. 9 m 18 cm = \_\_\_\_\_ cm

7 b. 56 cm 6 mm = \_\_\_\_\_ mm

8 a. 706 cm = \_\_\_\_ m \_\_\_\_ cm

8 b. 473 mm = \_\_\_\_ cm \_\_\_\_ mm

9 a. 306 mm = \_\_\_\_ cm \_\_\_\_ mm

9 b. 386 cm = \_\_\_\_ m \_\_\_\_ cm