

# Outcome 3 - Metric & Imperial Measures for Weight

## Bronze examples

**Examples...**

5.39 kg = 5390 g    0.82 tonnes = 820 kg  
 ( × 1000! )        ( × 1000! )

79.3 tonnes = 79 300 000 g  
 ( × 1 000 000! )


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604 g = 0.604 kg    52 kg = 0.052 tonnes  
 ( ÷ 1000! )        ( ÷ 1000! )

4 g = 0.000 004 tonnes  
 ( ÷ 1 000 000! )

## Silver examples

**Examples...**

 A bag of sugar weighs 6 pounds. How much is this in grams?

$6 \times 453.59 = 2721.54$  grams

Lucy recently achieved her target weight of 10 stone. How much is this in kilograms?

$10 \times 6.35 = 63.5$  kilograms

## Gold examples

**Examples...**

The weight of a cow is 1436 lb. What is this in tonnes?

$1436 \times 453.59 \div 1\,000\,000$   
 = 0.65135524 tonnes

A boxer weighs 13 st 4 lb. How much does he weigh in kilograms?

- Change the stones into kilograms  
 $13 \times 6.35 = 82.55$  kg
- Change the pounds into kilograms  
 $4 \times 453.59 \div 1000 = 1.81436$  kg
- Add them together  
 $82.55 + 1.81436 = 84.36436$  kg

## Bronze Questions

Change the following units of weight...



1 0.78 kg = ? g      2 0.08 tonnes = ? kg

3 0.016 tonnes = ? g    4 6.1 kg = ? g

5 4.09 tonnes = ? kg    6 836 g = ? kg

7 1.56 kg = ? tonnes    8 3586 g = ? tonnes

9 72.3 g = ? kg      10 4567 kg = ? tonnes

Unit	Abbrev.	Metric	Links
ounce	oz	28.35 g	16 oz = 1 lb
pound	lb	453.59 g	16 oz = 1 lb 14 lb = 1 stone
stone	st	6.35 kg	14 lb = 1 stone

## Silver Questions

1 A baby's bottle contains 5 oz. What is this weight in grams?



2 A heavyweight boxer weighs 215 lbs. What is his weight in grams?



3 John weighed himself at the gym. He is 17 st. How much does he weigh in kilograms?



4 A weight lifter is using 30 lb dumbbells. How heavy are they in grams?



## Gold Questions

1 The average human brain weighs 49 ounces. How many kilograms is this?



2 The weight of an elephant is 803 st. What is this in tonnes?



3 A weight bar is 64 lbs. How many kilograms is this?



4 Robert weighs 12 st 7 lb. How much is this in kilograms?

## Bronze Answers

- |                   |                    |
|-------------------|--------------------|
| 1. 780 g          | 2. 80 kg           |
| 3. 16 000 g       | 4. 6100 g          |
| 5. 4090 kg        | 6. 0.836 kg        |
| 7. 0.00156 tonnes | 8. 0.003586 tonnes |
| 9. 0.0723 kg      | 10. 4.567 tonnes   |

## Silver Answers

- |              |                |
|--------------|----------------|
| 1. 141.75 g  | 2. 97 521.85 g |
| 3. 107.95 kg | 4. 13 607.7 g  |

## Gold Answers

- |                |                   |
|----------------|-------------------|
| 1. 1.38915 kg  | 2. 5.09905 tonnes |
| 3. 29.02976 kg | 4. 79.37513 kg    |