

# 11 - 1

## Weight

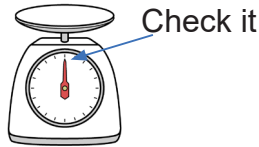
### How to Read a Scale

**Instruction** Let's measure the weight of an object using a scale.

1. Put the scale on a flat surface.



2. At first, make sure the needle is at "0".



3. Stand directly in front of scale when reading it.



Scale showing the weight

- A unit called **gram** is used to measure weight.
- 1 gram is written as **1 g**.

The weight of a one-yen coin is 1 g. Look for objects that weigh 1 g around you.



### Example 1

1 Up to how many g can the scale on the right weigh?

1000 g

2 How many g does one mark on the scale represent?

10 g



3 Read the following scales and write the weight in the .

A



500 g

B

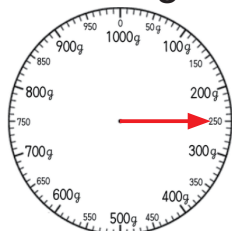


160 g

4 Draw the needle showing the following weights on the scale.

C

250 g



D

870 g



**1** Read the scales and write the weight in the .

**1**



g

**2**



g

**3**



g

**4**



g

**5**



g

**6**



g

**2** Draw the needle on the scale to show the following weights.

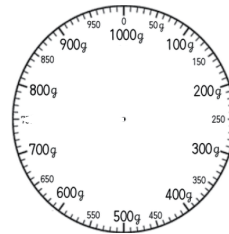
**1**

600 g



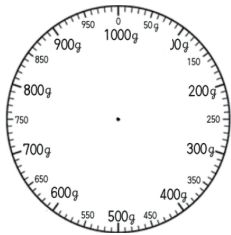
**2**

750 g



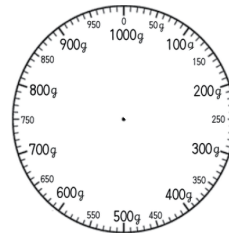
**3**

90 g



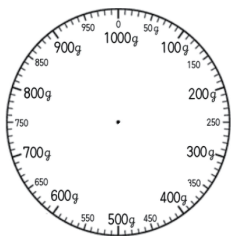
**4**

130 g



**5**

370 g



**6**

410 g



# 11 - 2

## Weight

### Units of Weight (1)

**Instruction** Let's measure weight of an object using a scale.

- 1000 g is called 1 **kilogram** and is written as 1 **kg**.
- 1 kg = 1000 g.

1 L of water weighs 1 kg.



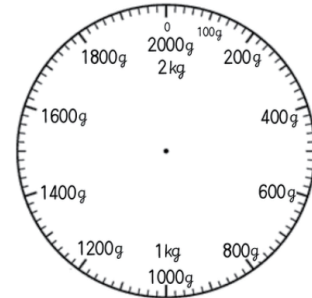
### Example 1

1 Up to how many kg can the scale on the right weigh?

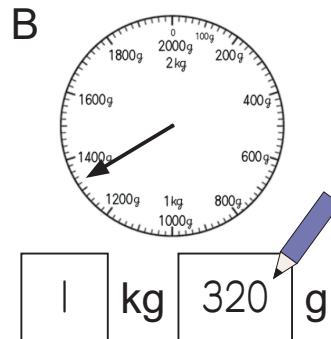
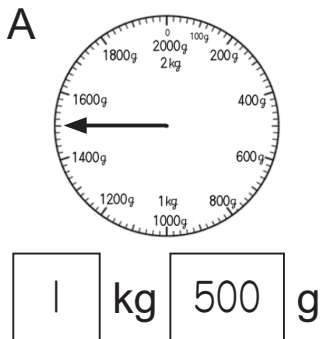
2 kg

2 How many g does the smallest mark on the scale represent?

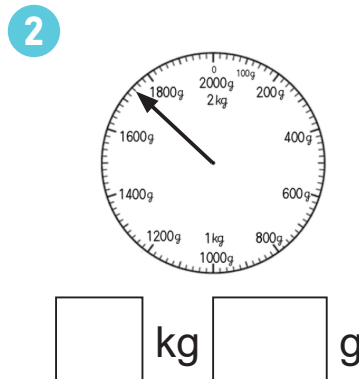
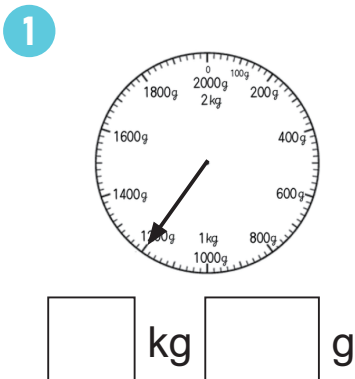
20 g



3 How many kg and g does scale A and scale B show?



How many kg and g does each scale show?



# 11 - 3

## Weight

### Units of Weight (2)

**Example 1** Convert the weights.

$$2050 \text{ g} = \boxed{2} \text{ kg } \boxed{50} \text{ g}$$

1000 g is same as 1 kilogram and it can be written as 1 kg.



**Example 2** Convert the weights to g or kg.

1  $3 \text{ kg} = \boxed{3000} \text{ g}$

2  $1 \text{ kg } 600 \text{ g} = \boxed{1600} \text{ g}$

This is a tip for conversion.

If you convert  $\boxed{\phantom{0}} \boxed{\phantom{0}} \boxed{1} \boxed{6} \boxed{0} \boxed{0} \text{ g}$   
 1600 g, copy the numbers as it is.  $\downarrow$   
 1 kg 600 g

Convert the weights to g or kg or kg and g.

$\boxed{\phantom{0}} \boxed{\phantom{0}} \boxed{\phantom{0}} \text{ kg } \boxed{\phantom{0}} \boxed{\phantom{0}} \boxed{\phantom{0}} \text{ g}$

1  $1000 \text{ g} = \boxed{\phantom{0}} \text{ kg}$

2  $9000 \text{ g} = \boxed{\phantom{0}} \text{ kg}$

3  $1500 \text{ g} = \boxed{\phantom{0}} \text{ kg } \boxed{\phantom{0}} \text{ g}$

4  $3260 \text{ g} = \boxed{\phantom{0}} \text{ kg } \boxed{\phantom{0}} \text{ g}$

5  $4220 \text{ g} = \boxed{\phantom{0}} \text{ kg } \boxed{\phantom{0}} \text{ g}$

6  $5300 \text{ g} = \boxed{\phantom{0}} \text{ kg } \boxed{\phantom{0}} \text{ g}$

7  $1 \text{ kg } 700 \text{ g} = \boxed{\phantom{000}} \text{ g}$

8  $3 \text{ kg } 400 \text{ g} = \boxed{\phantom{000}} \text{ g}$

9  $2 \text{ kg } 78 \text{ g} = \boxed{\phantom{000}} \text{ g}$

10  $1 \text{ kg } 25 \text{ g} = \boxed{\phantom{000}} \text{ g}$

11  $8 \text{ kg } 3 \text{ g} = \boxed{\phantom{000}} \text{ g}$

12  $9 \text{ kg } 5 \text{ g} = \boxed{\phantom{000}} \text{ g}$

13  $7 \text{ kg } 275 \text{ g} = \boxed{\phantom{000}} \text{ g}$

14  $10 \text{ kg} = \boxed{\phantom{000}} \text{ g}$

# 11 - 4

## Weight

### Relation between Units

**Example 1** Fill in the  with numbers.

1  $1 \text{ m} = \boxed{1000} \text{ mm}$

2  $1 \text{ L} = \boxed{1000} \text{ mL}$

**Example 2** Fill in the  with appropriate units of quantities.

1 Width of a notebook. 21  cm

2 Amount of milk in a milk carton. 1  L

3 Weight of a child. 30  kg

**1** Fill in the  with numbers.

1  $1 \text{ km} = \boxed{\phantom{000}} \text{ m}$

2  $1 \text{ kg} = \boxed{\phantom{000}} \text{ g}$

**2** Fill in the  with appropriate units of quantities.

1 Length of a classroom. 8

2 Distance of a hiking trail. 10

3 Amount of canned juice. 350

4 Thickness of a notebook. 4

5 Weight of a tennis ball. 58

# 11 - 5

## Weight

### Units of Weight (3)

**Example 1** A small car weighs 1000 kg and a truck weighs 3100 kg. How much is the total weight?

$$1000 \text{ kg} + 3100 \text{ kg} = \boxed{4100} \text{ kg}$$

1000 kg is called 1 **tonne** and written as 1 **t**.  
1 t = 1000 kg

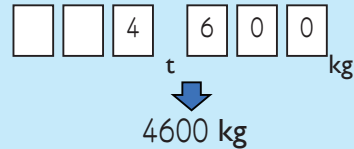


**Example 2** Convert the weights to kg or t.

1 7000 kg =  t

2 4 t 600 kg =  kg

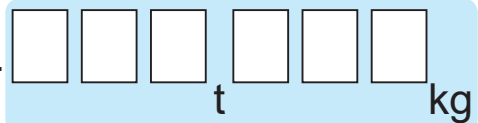
This is a tip for conversion.



1 A baby elephant at a zoo weighs 1400 kg, and the mother elephant weighs 4600 kg. What is their weight in total?

$$1400 \text{ kg} + 4600 \text{ kg} = \boxed{\phantom{000}} \text{ kg} = \boxed{\phantom{00}} \text{ t}$$

2 Convert the weights to kg or t or t and kg.



1 1000 kg =  t

2 5000 kg =  t

3 2500 kg =  t  kg

4 1160 kg =  t  kg

5 3095 kg =  t  kg

6 4475 kg =  t  kg

7 1 t 700 kg =  kg

8 3 t 450 g =  kg

9 5 t 95 kg =  kg

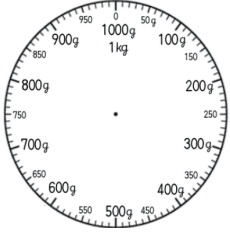
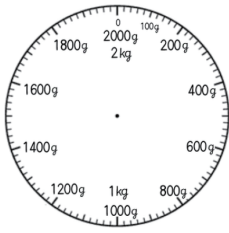
10 10 t =  kg

# 11 - 6

## Weight

### Review

1 What is the highest weight this scale and measure? What is the lowest? Fill in the table below.

|                |  |   |
|----------------|--|---|
| Scale          |  |  |
| Highest weight |  |   |
| Lowest weight  |  |   |

2 Read the scales.

1



g

2



g

3



kg  g

4



kg  g

3 Draw the needle to show the following weights on the scale.

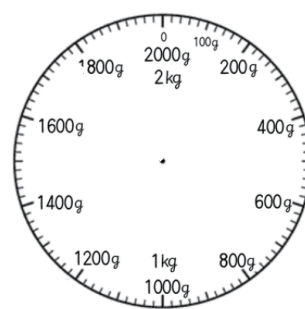
1

80 g



2

1760 g



**4** Convert the weights to g or kg or kg and g.

1 1000 g =  kg

2 1000 kg =  t

3 3790 g =  kg  g

4 2230 kg =  t  kg

5 1 t 450kg =  kg

6 5 kg 50 g =  g

t    kg    g

**5** Complete the table below.

| Kinds of Units | m  | c  | d  |   | K  |
|----------------|----|----|----|---|----|
| Length         | mm | cm |    | m |    |
| Capacity       | mL |    | dL | L |    |
| Weight         |    |    |    | g | kg |

**6** Fill in the  with appropriate units of quantities.

1 Weight of a truck. 3

2 Height of a can. 10

3 Amount of soda in a PET bottle. 500

4 Weight of 1 L of bottled water. 1

5 Length of a staple. 10