

# Independent Recap

Measurement  
Week 11

Year 3

# Arithmetic

1.  $817 + 100$

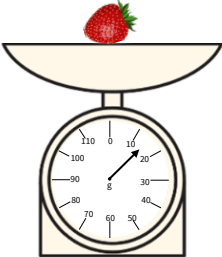

2.  $24 \div 8$

3.  $637 + 94$

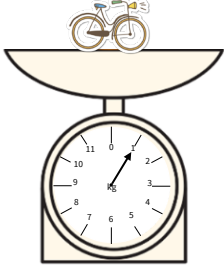
4.  $703 - 384$

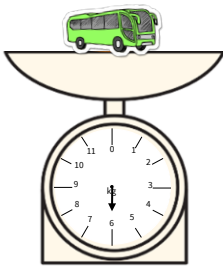
# Practice: Measure Mass

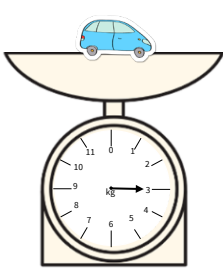
5. Recap: Explain how to read the mass of the strawberry.

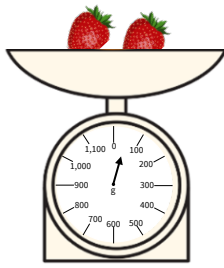
6. Find the mass of each toy.

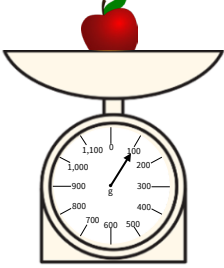
a. 

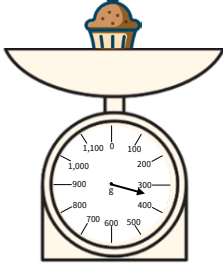
b. 

c. 

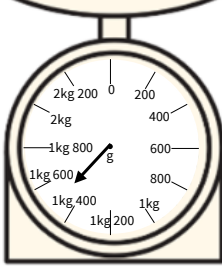
7. Find the mass of each item.

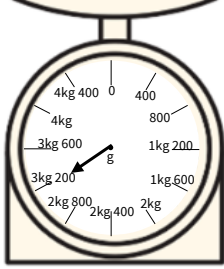
a. 

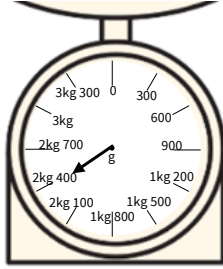
b. 

c. 

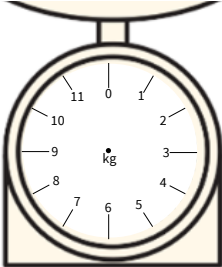
8. What mass is shown on the scales?

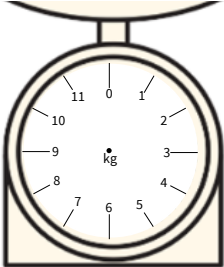
a. 

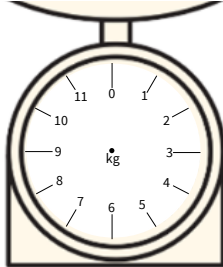
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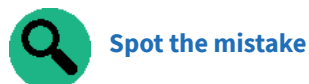
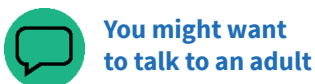
c. 

9. Draw an arrow on the scales to show the mass of each object.

a. 2kg 

b. 4kg 

c. 0kg 

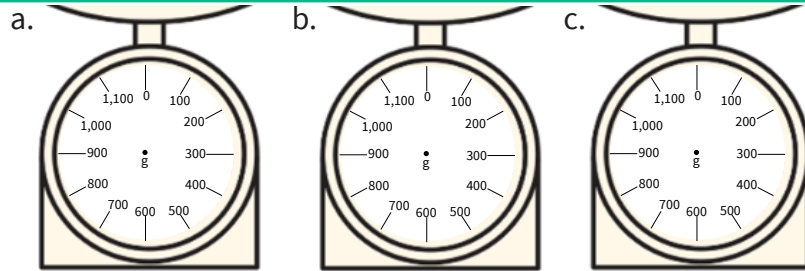


**10.** Would you use kilograms or grams to measure the mass of a cookie?  
Explain your answer.



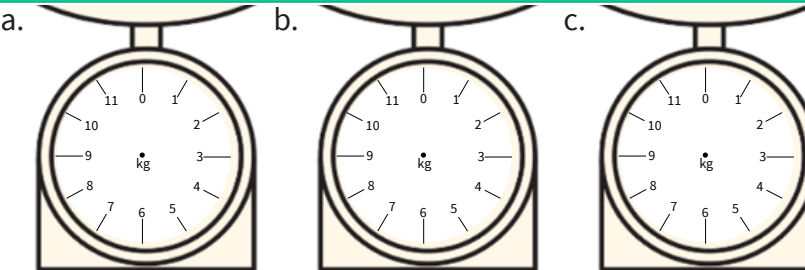
**11.** Draw an arrow on the scales to show the mass of each object.

- a. 700g
- b. 250g
- c. 450g

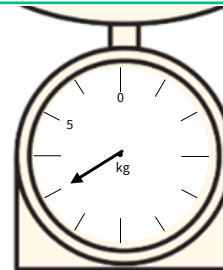


**12.** Draw an arrow on the scales to show the mass of each object.

- a. 2kg 500g
- b. 1kg 100g
- c. 3kg 900g

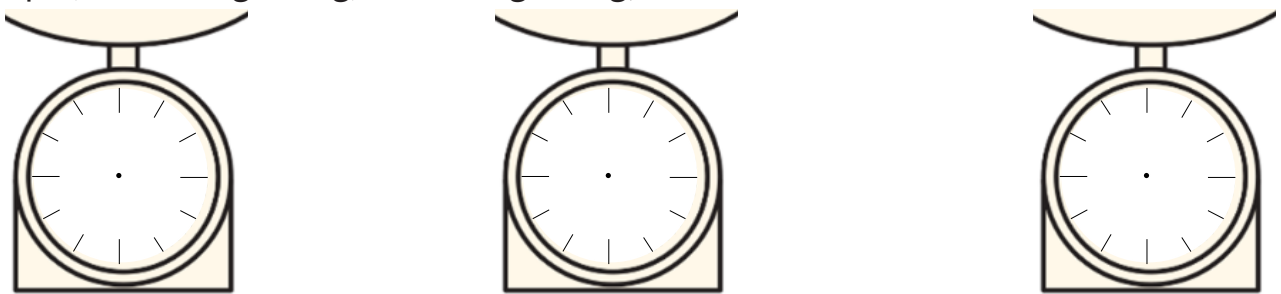


**13.** Brody says the toy weighs 3kg.  
Is he correct? Explain your answer.



Challenge

**14.** Show 7kg on the weighing scales. Use a different scale for each weighing scale (for example, increasing in 1kg, increasing in 2kg).



You might want to talk to an adult



Spot the mistake

## Answers

Q no.	Question	Answer
1	$817 + 100$	917
2	$24 \div 8$	3
3	$637 + 94$	731
4	$703 - 384$	319
5	Explain how to read the mass of the strawberry.	The given scale has missing measures on it. As such, the pupil needs to understand how to find the missing numbers. Linking the scales to a number line may help pupils to understand how to identify the missing numbers.
6	Find the mass of each toy.	a. 1kg, b. 6kg, c. 3kg
7	Find the mass of each item.	a. 50g, b. 100g, c. 350g
8	What mass is shown on the scales?	a. 1kg 500g, b. 3kg 200g, c. 2kg 400g
9	Draw an arrow on the scales to show the mass of each object.	Arrows correctly identify the given masses.
10	Would you use kilograms or grams to measure the mass of a cookie? Explain your answer.	A cookie would be measured in grams. Explanations will vary but should outline the fact that cookies are small and will therefore not be very heavy. Using kilograms would not be an efficient unit of measure.
11	Draw an arrow on the scales to show the mass of each object.	Arrows correctly identify the given masses.
12	Draw an arrow on the scales to show the mass of each object.	Arrows correctly identify the given masses.
13	Brody says the toy weighs 3kg. Is he correct? Explain your answer.	Brody is incorrect. He has understood that the toy is less than 5kg but he has not understood that each mark represents .5 of a kilogram. He has instead misinterpreted each mark to be whole kg. The actual weight is 4kg.
14	Show 7kg on the weighing scales. Use a different scale for each weighing scale (for example, increasing in 1kg, increasing in 2kg).	Pupils should have created scales increasing in different increments. Each scale should show 7kg.

## Arithmetic

1.  $655 + 100$

2.  $48 \div 8$

3.  $629 + 200$

4.  $\frac{2}{7} + \frac{4}{7}$

## Practice: Compare Mass

5. Recap: To compare masses, why is it important to read the unit of measure carefully?



6. Complete the sentences using lighter and heavier. Bag = 7kg, ball = 300g  
The bag is  than the ball.  
The ball is  than the bag.

7. Use  $>$ ,  $<$  or  $=$  to compare these masses.  
3 apples = 360g, 3 tennis balls = 350g  
Apples  tennis balls

8. Use  $>$ ,  $<$  or  $=$  to compare these masses.  
3 pencils = 300g, 3 books = 3kg  
1 pencil =  g, 1 book =  kg  
1 Pencil  1 Book

9. Use  $>$ ,  $<$  or  $=$  to compare these masses.  
a. 400g  700g      b. 500g  300g  
c. 1,500g  150g

10. Which is heavier, 300kg or 300g? How do you know?



11. Use  $>$ ,  $<$  or  $=$  to compare these masses.  
a. 3kg  300g      b. 2,000g  2kg  
c. 150g  15kg

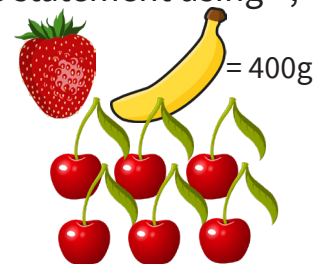
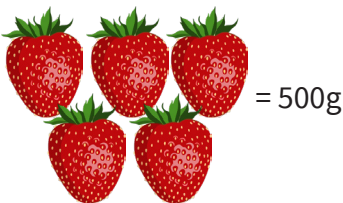
12. Use  $>$ ,  $<$  or  $=$  to compare these masses.  
a. 1kg  1,000g      b. 23g  2kg  
d. 30kg  3,000g

13.  $1\text{kg} > 1,000\text{g}$   
Explain the error.



Challenge

14. Calculate the weight of each fruit and write a comparative statement using  $<$ ,  $>$  or  $=$ .



You might want to talk to an adult



Spot the mistake

# Answers

Q no.	Question	Answer
1	$655 + 100$	755
2	$48 \div 8$	6
3	$629 + 200$	829
4	$\frac{2}{7} + \frac{4}{7}$	$\frac{6}{7}$
5	To compare masses, why is it important to read the unit of measure carefully?	It is important to read the unit of measure carefully as one item may be measured in grams while the other is in kilograms.
6	Complete the sentences using lighter and heavier.	heavier, lighter
7	Use >, < or = to compare these masses.	Apples > tennis balls
8	Use >, < or = to compare these masses.	1 pencils = 100g, 1 books = 1kg, pencil < book
9	Use >, < or = to compare these masses.	a. <, b. >, c. >
10	Which is heavier, 300kg or 300g? How do you know?	300kg is heavier. Pupils need to understand that both numbers are the same (300) so to determine which measure is heavier, they need to look at the unit of measure.
11	Use >, < or = to compare these masses.	a. >, b. =, c. <
12	Use >, < or = to compare these masses.	a. =, b. <, c. >
13	1kg > 1,000g Explain the error.	This answer shows that the pupil answering does not understand that 1kg is the same as 1,000g. This could indicate that the pupil believes kg always denotes a heavier mass, which is not always true.
14	Calculate the weight of each fruit and write a comparative statement using <, > or =.	1 strawberry = 100g 1 banana = 150g 1 cherry = 25g Example comparative statement: strawberry < banana > cherry

## Arithmetic

1.  $84 + 50$

2.  $80 \times 5$

3.  $88 + 320$

4.  $\frac{1}{7} + \frac{4}{7}$

## Practice: Add and Subtract Mass

5. Recap: Explain how to complete this calculation:

$1\text{kg } 400\text{g} + 1\text{kg } 800\text{g}$



6. Calculate these.

a.  $2\text{kg } 300\text{g} + 4\text{kg } 500\text{g}$

b.  $4\text{kg } 400\text{g} + 3\text{kg } 600\text{g}$

c.  $7\text{kg } 150\text{g} + 2\text{kg } 450\text{g}$

7. Calculate these.

a.  $5\text{kg } 600\text{g} - 2\text{kg } 100\text{g}$

b.  $3\text{kg } 700\text{g} - 2\text{kg } 500\text{g}$

c.  $7\text{kg } 400\text{g} - 3\text{kg } 400\text{g}$

8. Calculate these.

a.  $3\text{kg } 600\text{g} + 1\text{kg } 700\text{g}$

b.  $1\text{kg } 950\text{g} + 4\text{kg } 400\text{g}$

c.  $5\text{kg } 650\text{g} + 5\text{kg } 750\text{g}$

9. Calculate these.

a.  $4\text{kg } 200\text{g} - 1\text{kg } 500\text{g}$

b.  $5 \frac{1}{2} \text{kg} - 4\text{kg } 200\text{g}$

c.  $7\text{kg} - 5\text{kg } 100\text{g}$

10. Explain how to solve this calculation:

$3\text{kg } 500\text{g} + ? = 5\text{kg}$



11. Calculate these.

a.  $10\text{kg} + ? = 15\text{kg } 750\text{g}$

b.  $4\text{kg } 300\text{g} - ? = 1\text{kg } 700\text{g}$

12. Calculate these.

a.  $6\text{kg} - ? = 2 \frac{1}{2} \text{kg}$

b.  $2\text{kg} + 800\text{g} + ? = 5\text{kg } 50\text{g}$

13.  $3\text{kg } 500\text{g} - 2\text{kg } 600\text{g} = 2\text{kg } 1\text{g}$

Explain the errors.



Challenge

14. The answer is 5kg.

Write at least two addition and two subtraction calculations that would provide this answer.

You might want  
to talk to an adult

Spot the mistake

## Answers

Q no.	Question	Answer
1	$84 + 50$	134
2	$80 \times 5$	400
3	$88 + 320$	408
4	$\frac{1}{7} + \frac{4}{7}$	$\frac{5}{7}$
5	Explain how to complete this calculation: 1kg 400g + 1kg 800g	Methods to solve this calculation will vary but the pupil should identify that they will need to convert the grams to kilograms to ensure the answer is accurate. The correct answer is 3kg 200g.
6	Calculate these.	a. 6kg 800g, b. 8kg, c. 9kg 600g
7	Calculate these.	a. 3kg 500g, b. 1kg 200g, c. 4kg
8	Calculate these.	a. 5kg 300g, b. 6kg 350g, c. 11kg 400g
9	Calculate these.	a. 2kg 700g, b. 1kg 300g, c. 1kg 900g
10	Explain how to solve this calculation: 3kg 500g + ? = 5kg	Answers will vary. Pupils may talk about using the inverse to find the missing value or they may use bar models to find the missing value. Accept answers that describe an efficient method to solve this calculation. The missing number is 1kg 500g or 1 ½ kg.
11	Calculate these.	a. 5kg 750g, b. 2kg 600g
12	Calculate these.	a. 3 ½ kg or 3kg 500g, b. 2kg 250g
13	3kg 500g – 2kg 600g = 2kg 1g. Explain the errors.	The answer shows two errors. The first error is that the pupil has reversed the grams and calculated 600g – 500g. This is a common error, especially when pupils use the column method of subtraction and are not confident with exchanging. The second error is with the grams. The pupil has not understood that the zeros are required in 100g. This demonstrates that the pupil does not understand the importance of zero as a place holder.
14	The answer is 5kg. Write at least two addition and two subtraction calculations that would provide this answer.	Answers will vary, accept answers that give the answer 5kg. Example answer: $3\text{kg} + 2\text{kg} = 5\text{kg}$ $2\text{kg } 500\text{g} + 2\text{kg } 500\text{g} = 5\text{kg}$ $7\text{kg} - 2\text{kg} = 5\text{kg}$ $10\text{kg } 400\text{g} - 5\text{kg } 400\text{g} = 5\text{kg}$



## Arithmetic

1.  $3 \times 4$

2.  $504 - 100$

3.  $242 - 108$

4.  $\frac{3}{5} - \frac{2}{5}$

## Practice: Measure Capacity

5. Recap: Explain the difference between capacity and volume.

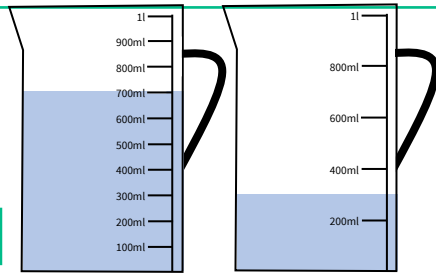


6. Complete these sentences

The capacity of these containers is

The volume of the liquid in the first container is

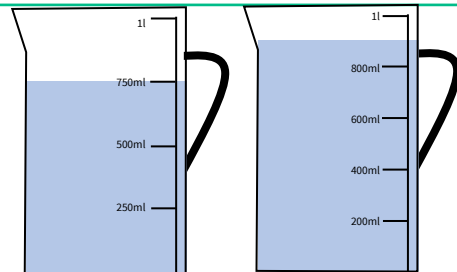
The volume of the liquid in the second container is



7. Complete these sentences.

The increments of the first container are in  and the volume of liquid is .

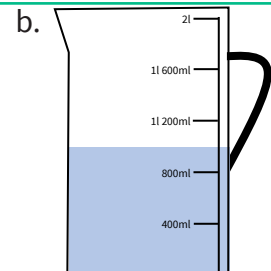
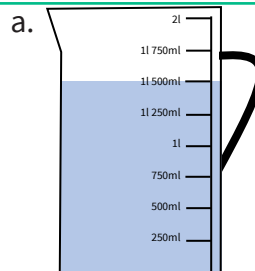
The increments of the second container are in  and the volume of liquid is .



8. What is the volume of liquid in these containers?

a.

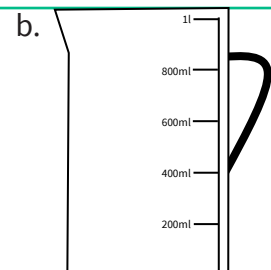
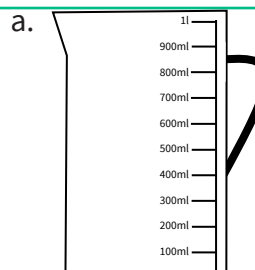
b.



9. Draw a line on these containers to show the volumes of liquid.

a. 600ml

b. 700ml



You might want to talk to an adult



Spot the mistake

**10.** Why is it important to read scales carefully?

**11.** Draw a line on these containers to show the volumes of liquid.

a. 900ml  
b. 1,500ml

**12.** Draw a line on these containers to show the volumes of liquid.

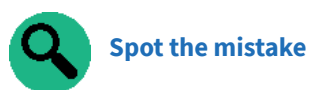
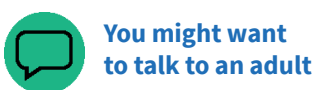
a. 700ml  
b. 1l 300ml

**13.** Zayn says that container a has a larger capacity as it is taller. Is he correct? Explain.

Challenge

**14.** How much more would I need to add to each container to make 1 litre? Explain how you know.

Draw a line on container c. What is the volume of the container? How much more would you need to add to make 1 litre?



## Answers

Q no.	Question	Answer
1	$3 \times 4$	12
2	$504 - 100$	404
3	$242 - 108$	134
4	$\frac{3}{5} - \frac{2}{5}$	$\frac{1}{5}$
5	Explain the difference between capacity and volume.	The capacity is the amount of liquid that a container can hold. Volume is the amount of space taken up by an object (in this topic, volume refers to the amount of liquid a container currently contains).
6	Complete these sentences.	1 litre, 700ml, 300ml
7	Complete these sentences.	250ml, 750ml, 200ml, 900ml
8	What is the volume of liquid in these containers?	1 litre 500ml, 1 litre
9	Draw a line on these containers to show the volumes of liquid.	Lines correctly drawn.
10	Why is it important to read scales carefully?	Two containers could have different incremental increases. In the containers shown in the question, one container increases in 250ml increments with a capacity of 2l, the other increases in 200ml increments with a capacity of 1l.
11	Draw a line on these containers to show the volumes of liquid.	Lines correctly drawn.
12	Draw a line on these containers to show the volumes of liquid.	Lines correctly drawn.
13	Zayn says that container a has a larger capacity as it is taller. Is he correct? Explain.	Zayn is incorrect. The container looks taller, however, the top of the scale shows 500ml. Container b has 1l marked at the top of the scale. Despite container b looking smaller, it has a larger capacity.
14	Look at the containers. How much more would I need to add to each to make 1 litre? Explain how you know. Draw a line on container c. What is the volume of the container? How much more would you need to add to make 1 litre?	a - 350ml marked, 650ml would need to be added to make 1 l. b - 700ml marked, 300ml would need to be added to make 1 l. Explanations will vary depending on the method the pupil has used. Some will have explored this using concrete resources while others will have calculated the difference. Answers for the final question will vary depending on the ml the pupil has drawn. Accept answers that are accurately drawn and make 1 litre.