

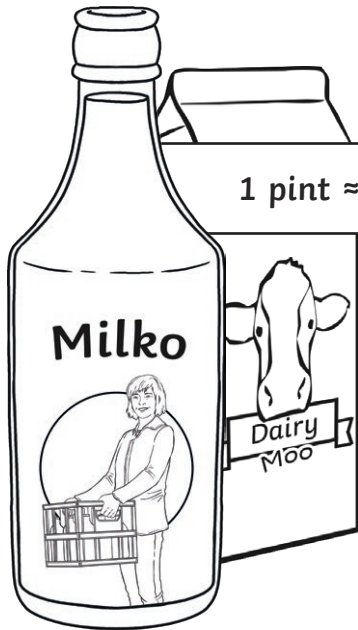


Units of Volume and Capacity

I can understand, use and convert between common metric and imperial units of volume and capacity.



Two different milk delivery companies measure their milk in different ways. Milko uses glass bottles that are measured in pints while Dairy Moo uses cartons that are measured in litres.



The customers of both companies need to convert between the two to work out which company they should order from.

1 pint \approx 0.6l

1l \approx 1.8 pints

What strategies could you use to convert between pints and litres?

double

halve

\div 2

add

number
facts

another
method

1. Fill in the missing measurements in the table to convert from pints to litres:

1 pint	2 pints	4 pints	5 pints	8 pints	10 pints
0.6l					

2. Fill in the missing measurements in the table to convert from litres to pints:

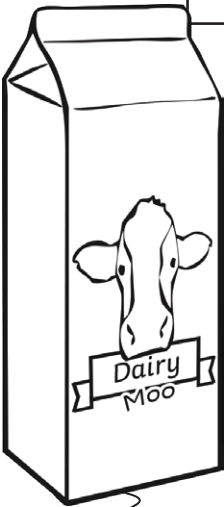

1l	2l	4l	5l	8l	10l
1.8 pints					



3. Lola's family have their milk delivered by Dairy Moo, which measures milk in litres; however, Lola's grandma has her milk delivered by Milko, which measures milk in pints. Here is the milk that Milko and Dairy Moo delivered each day of the week.

For each day, circle the measurement that is greater.

	Milko	Dairy Moo
Monday	2 pints	2l
Tuesday	8 pints	2l
Wednesday	5 pints	4l
Thursday	8 pints	5l
Friday	4 pints	1l

4. Lola's grandma wanted to make milkshakes for her grandchildren, but she only had 2 pints of milk. She asked Lola to bring some milk over. Lola brought a 1-litre carton.

How much milk did they have altogether? Give your answer in litres.
Show how you worked out the answer.





Units of Volume and Capacity

Answers

1.

1 pint	2 pints	4 pints	5 pints	8 pints	10 pints
0.6l	1.2l	2.4l	3l	4.8l	6l

2.

1l	2l	4l	5l	8l	10l
1.8 pints	3.6 pints	7.2 pints	9 pints	14.4 pints	18 pints

3.

	Milko	Dairy Moo
Monday	2 pints	2l
Tuesday	8 pints	2l
Wednesday	5 pints	4l
Thursday	8 pints	5l
Friday	4 pints	1l

4.

2 pints \approx 1.2l

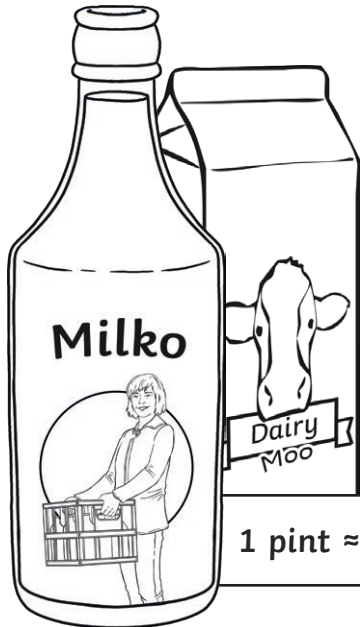
1.2l + 1l = 2.2l

They had 2.2l of milk altogether.



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The customers of both companies need to convert between the two to work out which company they should order from.

1 l ≈ 1.8 pints

1 pint ≈ 0.6l

1. Fill in the missing measurements in the table to convert from pints to litres:

1 pint	2 pints	5 pints	8 pints	10 pints	15 pints	20 pints
0.6l						

2. Fill in the missing measurements in the table to convert from litres to pints:

1l	2l	5l	8l	10l	15l	20l
1.8 pints						

3. Sort each amount given in litres into the correct column in the table.

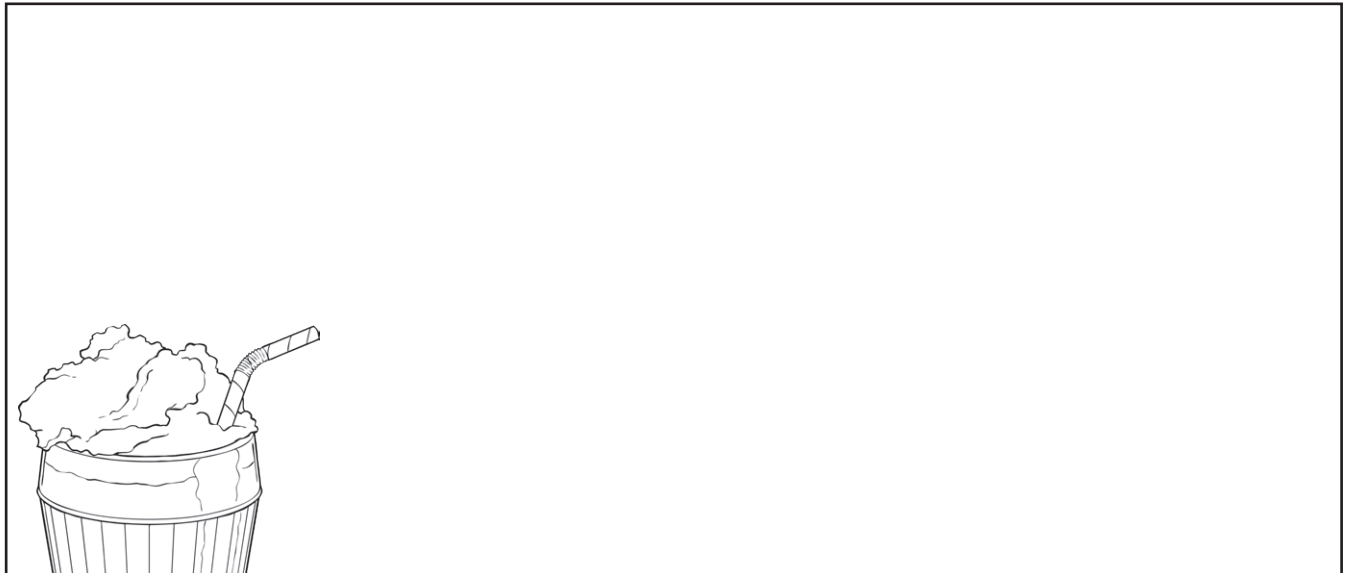
	Less Than 10 Pints	Greater Than 10 Pints
4 litres 1 litre 3 litres 7 litres 2 litres 10 litres		

4. Lola's grandma wanted to make milkshakes for her grandchildren, but she only had 3 pints of milk. She asked Lola to bring some milk over. Lola brought a 2-litre carton.

a) How much milk did they have altogether? Give your answer in litres. Show your working out.



b) Lola's grandma used 5 pints of milk to make the milkshakes. How much milk did she have left over? Give your answer in litres. Show your working out.





Units of Volume and Capacity

Answers

1.

1 pint	2 pints	5 pints	8 pints	10 pints	15 pints	20 pints
0.6l	1.2l	3l	4.8l	6l	9l	12l

2.

1l	2l	5l	8l	10l	15l	20l
1.8 pints	3.6 pints	9 pints	14.4 pints	18 pints	27 pints	36 pints

3.

Less Than 10 Pints	Greater Than 10 Pints
1 litre 2 litres 3 litres 4 litres	7 litres 10 litres

4.

a)

$$3 \text{ pints} \approx 1.8l$$

$$2l + 1.8l = 3.8l$$

They have 3.8l of milk in total.

b)

$$5 \text{ pints} \approx 3l$$

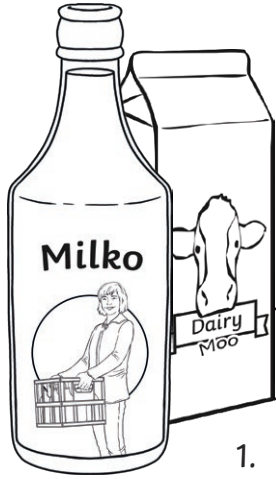
$$3.8l - 3l = 0.8l$$

She had 0.8l (or 800ml) of milk left over.



Units of Volume and Capacity

I can understand, use and convert between common metric and imperial units of volume and capacity.



Two different milk delivery companies measure their milk in different ways. Milko uses glass bottles that are measured in pints while Dairy Moo uses cartons that are measured in litres.

The customers of both companies need to convert between the two to work out which company they should order from.

$$1\text{l} \approx 1.8 \text{ pints}$$

$$1 \text{ pint} \approx 0.6\text{l}$$

1. Fill in the missing measurements in the table to convert from pints to litres:

2 pints	5 pints	8 pints	10 pints	12 pints	20 pints	25 pints

2. Fill in the missing measurements in the table to convert from litres to pints:

2l	5l	8l	10l	12l	20l	25l

3. The milk delivery companies created a table to help their customers convert between pints and litres – but Lola thinks she has spotted some mistakes. Tick the correct conversions and cross the wrong ones; write the correct conversion next to any mistakes that you find.

Imperial	Metric	✓ or ✗
3 pints	5.4 litres	
4 pints	2.4 litres	
6 pints	36 litres	
5.4 pints	3l	
14.4 pints	7l	
16.2 pints	9l	



4. Lola's family have their milk delivered by Dairy Moo, which measures milk in litres; however, Lola's grandma has her milk delivered by Milko, which measures milk in pints. Here are the amounts of milk that Milko and Dairy Moo delivered each day of the week:

	Monday	Tuesday	Wednesday	Thursday	Friday
Grandma	1 pint	3 pints	1 pint	2 pints	4 pints
Lola	0.5l	1l	3l	2l	1l

Use < or > to compare the total amounts of milk delivered on each day. Think carefully about which measurements you need to convert. Do you need to convert all of them? The first one has been done for you:

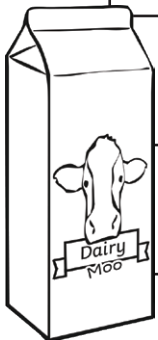
Friday 4 pints \approx 2.4l $2.4\text{l} + 1\text{l} = 3.4\text{l}$	>	Thursday 2 pints \approx 1.2l $1.2\text{l} + 2\text{l} = 3.2\text{l}$
Monday		Wednesday
Thursday		Tuesday
Wednesday and Friday		Tuesday and Thursday





5. Lola's grandma runs a guest house. As well as delivering milk, Milko also sells cartons of orange juice in cartons that hold 2 pints, 4 pints or 6 pints. For breakfast each day, she serves each guest 250ml of juice. Which size of carton would she need each day? Choose the smallest size possible – but make sure there is enough juice for all the guests.

Day	Number of Guests	Carton Size (2 pints, 4 pints or 6 pints)
Monday	5 guests	
Tuesday	10 guests	
Wednesday	3 guests	
Thursday	4 guests	
Friday	9 guests	
Saturday	12 guests	
Sunday	6 guests	





Units of Volume and Capacity

Answers

1.

2 pint	5 pints	8 pints	10 pints	12 pints	20 pints	25 pints
1.2l	3l	4.8l	6l	7.2l	12l	15l

2.

2l	5l	8l	10l	12l	20l	25l
3.6 pints	9 pints	14.4 pints	18 pints	21.6 pints	36 pints	45 pints

3.

Imperial	Metric	✓ or ×
3 pints	5.4 litres	× - 1.8l
4 pints	2.4 litres	✓
6 pints	36 litres	× - 3.6l
5.4 pints	3l	✓
14.4 pints	7l	× - 8l
16.2 pints	9l	✓



4.

Friday 4 pints \approx 2.4l $2.4\text{l} + 1\text{l} = 3.4\text{l}$	>	Thursday 2 pints \approx 1.2l $1.2\text{l} + 2\text{l} = 3.2\text{l}$
Monday 1 pint \approx 0.6l $0.6\text{l} + 0.5\text{l} = 1.1\text{l}$	<	Wednesday 1 pint \approx 0.6l $3\text{l} + 0.6\text{l} = 3.6$
Thursday 2 pint \approx 1.2l $2\text{l} + 1.2\text{l} = 3.2$	>	Tuesday 3 pint \approx 1.8l $1.8\text{l} + 0\text{l} = 2.8\text{l}$
Wednesday and Friday 1 pint \approx 0.6l 4 pints \approx 2.4l $3\text{l} + 2.4\text{l} + 1\text{l} + 0.6\text{l} = 7\text{l}$	>	Tuesday and Thursday 3 pints \approx 1.8l 2 pints \approx 1.2l $2\text{l} + 1\text{l} + 1.8\text{l} + 1.2\text{l} = 6\text{l}$

5.

Day	Number of Guests	Carton Size (2 pints, 4 pints or 6 pints)
Monday	5 guests	4 pints
Tuesday	10 guests	6 pints
Wednesday	3 guests	2 pints
Thursday	4 guests	2 pints
Friday	9 guests	4 pints
Saturday	12 guests	6 pints
Sunday	6 guests	4 pints