

MEASURES - LENGTH

Target Board

1m	$\frac{1}{2}$ m	90cm	25cm	0.10cm
20cm	2m	10cm	3.20m	50cm
$\frac{1}{4}$ m	$1\frac{1}{4}$ m	$2\frac{1}{2}$ m	1.30m	99cm
1.10m	0.1m	0.60m	85cm	0.70m

1. What is the longest measurement on target board? How many centimetres altogether?
2. What is the shortest measurement? How do you know?
3. What is the difference between the longest and shortest measurement?
4. What must I add to each measurement to make a metre?
5. Can you find matching pairs of measurements?
6. Which measurements are less than 1 metre/ $\frac{1}{2}$ metre/ $\frac{1}{4}$ metre?
7. Which measurements are more than 1 metre? By how much?
8. Change all the measurement to centimetres?
9. Add all of the measurements in the first/second/third row. How did you do it? Does anybody have a different way of adding these lengths mentally?
10. Rename the measurements as a decimal fractions.
11. Find a measurement that is greater than $\frac{1}{4}$ metre.

For the following worksheets- Use MatheMagic Chapters 'Length', 'Weight' and 'Capacity' to help you. Try your best and pick the ones you can do.

*Remember 100cm = 1m

Length – Measuring Grid 1

Object		cm	Fraction	Decimal
1	Pencil	<input type="text"/> cm	<input type="text"/> / <input type="text"/> m	<input type="text"/> . <input type="text"/> m
2	Pencil case	<input type="text"/> cm	<input type="text"/> / <input type="text"/> m	<input type="text"/> . <input type="text"/> m
3	Lunchbox	<input type="text"/> cm	<input type="text"/> / <input type="text"/> m	<input type="text"/> . <input type="text"/> m
4	Shoe	<input type="text"/> cm	<input type="text"/> / <input type="text"/> m	<input type="text"/> . <input type="text"/> m
5	Width of desk	<input type="text"/> cm	<input type="text"/> / <input type="text"/> m	<input type="text"/> . <input type="text"/> m
6		<input type="text"/> cm	<input type="text"/> / <input type="text"/> m	<input type="text"/> . <input type="text"/> m

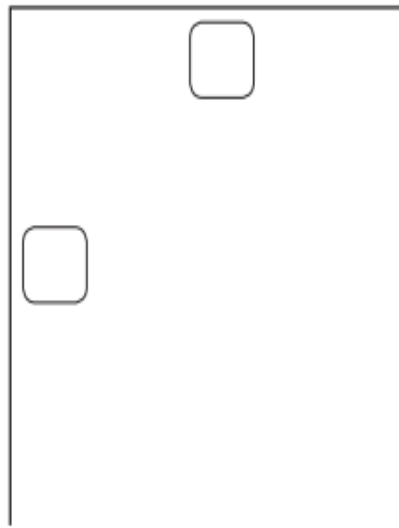
***Remember:** Perimeter = Add all sides.

Square = All sides are equal length.

Rectangle = Opposite sides are equal length.

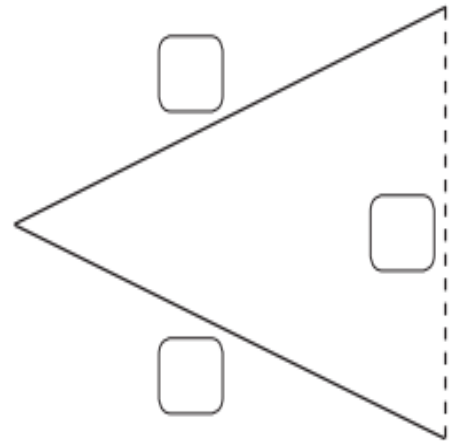
Length 2

1. Finish drawing this square.
Measure each side.



Perimeter: cm

2. Finish drawing this triangle.
Measure each side.



Perimeter: cm

3. Draw a rectangle with sides of
3cm and 6cm.

Perimeter: cm

4. Draw a square with sides of 4cm.

Perimeter: cm

22. Length

Mental Computation

Write as **centimetres (cm)**.

1. 1m 28cm

2. 2m 34cm

3. 4m 76cm

4. 8m 97cm

5. 1.34m

6. 2.68m

7. 3.92m

8. 6.75m

Write as **metres and centimetres (m and cm)**.

9. 168cm

10. 293cm

11. 408cm

12. 765cm

13. $3\frac{1}{4}$ m

14. $4\frac{1}{2}$ m

15. $6\frac{3}{4}$ m

16. $5\frac{3}{10}$ m

Write as **metres** using the **decimal point**.

17. 137cm

18. 246cm

19. 308cm

20. 586cm

Write as **metres**.

21. $2\frac{1}{100}$ km

22. $1\frac{7}{100}$ km

23. $3\frac{1}{2}$ km

24. $4\frac{9}{100}$ km

25. 2km 350m

26. 1km 870m

27. 3km 690m

28. 5km 830m

29. 2.46km

30. 3.58km

31. 4.96km

32. 6.72km

Write as **km** using the **decimal point**.

33. 2750m

34. 1970m

35. 3420m

36. 4690m

37. 2km 340m

38. 3km 720m

39. 4km 560m

40. 6km 970m








Written Computation

- | | | | | | | | | | |
|-----|---|-----|---|-----|---|-----|--|-----|--|
| 1. | $\begin{array}{r} 3.26\text{m} \\ 4.18\text{m} \\ + 1.53\text{m} \\ \hline \end{array}$ | 2. | $\begin{array}{r} 4.28\text{m} \\ 3.95\text{m} \\ + 0.68\text{m} \\ \hline \end{array}$ | 3. | $\begin{array}{r} 3\text{m } 28\text{cm} \\ 1\text{m } 46\text{cm} \\ + 2\text{m } 79\text{cm} \\ \hline \end{array}$ | 4. | $\begin{array}{r} 3.45\text{km} \\ 2.68\text{km} \\ + 1.96\text{km} \\ \hline \end{array}$ | 5. | $\begin{array}{r} 1.74\text{km} \\ 3.49\text{km} \\ + 4.36\text{km} \\ \hline \end{array}$ |
| 6. | $\begin{array}{r} 19.52\text{m} \\ - 8.79\text{m} \\ \hline \end{array}$ | 7. | $\begin{array}{r} 23.48\text{m} \\ - 14.63\text{m} \\ \hline \end{array}$ | 8. | $\begin{array}{r} 62.93\text{m} \\ - 37.56\text{m} \\ \hline \end{array}$ | 9. | $\begin{array}{r} 27.45\text{km} \\ - 18.67\text{km} \\ \hline \end{array}$ | 10. | $\begin{array}{r} 83.24\text{km} \\ - 47.96\text{km} \\ \hline \end{array}$ |
| 11. | $\begin{array}{r} 2.16\text{m} \\ \times 4 \\ \hline \end{array}$ | 12. | $\begin{array}{r} 4.38\text{m} \\ \times 3 \\ \hline \end{array}$ | 13. | $\begin{array}{r} 5.78\text{m} \\ \times 6 \\ \hline \end{array}$ | 14. | $\begin{array}{r} 9.34\text{km} \\ \times 7 \\ \hline \end{array}$ | 15. | $\begin{array}{r} 6.84\text{km} \\ \times 8 \\ \hline \end{array}$ |
| 16. | $3 \overline{)5.28\text{m}}$ | 17. | $5 \overline{)9.35\text{m}}$ | 18. | $7 \overline{)8.96\text{m}}$ | 19. | $6 \overline{)5.94\text{km}}$ | 20. | $9 \overline{)6.93\text{km}}$ |

Before doing these, write them in **decimal form**.

- | | | |
|-----|---|-------|
| 21. | $3\text{m } 38\text{cm} + 1\frac{1}{2}\text{m} + 4\text{m } 87\text{cm}$ | _____ |
| 22. | $2\text{m } 76\text{cm} + 1\frac{3}{10}\text{m} + 5\text{m } 43\text{cm}$ | _____ |
| 23. | $1\text{km } 360\text{m} + 2\frac{1}{2}\text{km} + 3\text{km } 590\text{m}$ | _____ |
| 24. | $4\text{km } 720\text{m} + 3\frac{1}{10}\text{km} + 5\text{km } 780\text{m}$ | _____ |
| 25. | $(8\text{m } 72\text{cm} - 3\frac{9}{10}\text{m}) \times 4$ | _____ |
| 26. | $(9\text{km } 240\text{m} - 3\text{km } 570\text{m}) \times 5$ | _____ |
| 27. | $(7\text{m } 80\text{cm} - 2\text{m } 35\text{cm}) \div 5$ | _____ |
| 28. | $9\text{km } 560\text{m} - 3\text{km } 140\text{m}) \div 6$ | _____ |
| 29. | $(2.34\text{m} + 3\text{m } 45\text{cm} + 1\frac{7}{10}\text{m}) \times 7$ | _____ |
| 30. | $(3\text{km } 280\text{m} + 4.57\text{km} + 1\frac{3}{10}\text{km}) \times 8$ | _____ |

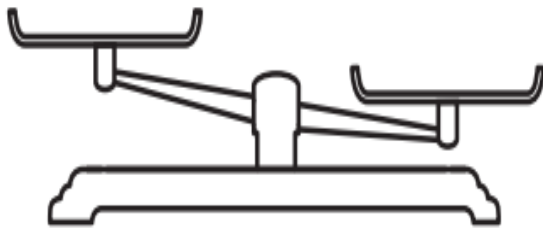
Written Problems

-  A house is 6m 57cm tall. Another house is 7m 85cm tall.
What is the total height of the two houses? _____
-  A church spire is 23m 35cm tall.
Another spire is 5m 68cm smaller than that.
How tall is the smaller spire? _____
-  A wooden plank measures 2m 48cm in length.
What is the total length of 7 such planks? _____
-  A piece of rope 9m 52cm long was cut into 4 equal pieces.
What was the length of each piece? _____
-  John is 1m 56cm tall. Joe is 1m 63cm tall.
A tree is 5.47m tall. How much taller is the tree
than the total height of the two boys? _____
-  Jim was painting a wall 26m 42cm long. He painted $8\frac{3}{10}$ metres
in the morning and 9.65 metres in the afternoon.
What length of wall had he still to paint? _____
-  Paul cycled 8km 360m one day and 9km 780m the next day.
How far altogether did he cycle over the two days? _____
-  Sue set off on a $6\frac{1}{2}$ km walk.
When she had completed 4km 690m,
how far had she still to go? _____
- A racetrack is 3km 420m long. Sarah cycled around the track 3 times.
What distance did she cycle? _____
-  The boy scouts completed a hike of 9km 680m over 4 days.
If they completed the same distance each day,
how far per day did they travel? _____
-  A rope was 9m 12cm long. Two pieces of $3\frac{1}{2}$ m and 4.75m were
cut off. What length of rope was left? _____
- Harry ran 9km 320m. Hazel ran $1\frac{7}{10}$ km less than that.
How far altogether did the two of them run? _____

***Remember 1,000g = 1kg**

Weight

A. Traditional kitchen scales



object

weight

1. _____

2. _____

3. _____

B. Digital kitchen scales



object

weight

1. _____

2. _____

3. _____

C. Bathroom scales



object

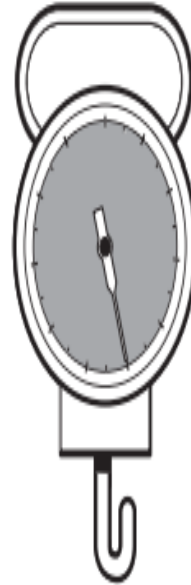
1. _____

2. _____

3. _____

weight

D. Luggage scales



object

1. _____

2. _____

3. _____

weight

24. Weight

Mental Computation

1. Write as **grammes (g)**.

(a) 1kg 200g (b) 1kg 280g (c) 1kg 790g (d) 2kg 860g

(e) $1\frac{1}{4}$ kg (f) $1\frac{1}{2}$ kg (g) $1\frac{3}{4}$ kg (h) $1\frac{1}{10}$ kg

2. Write as **grammes**.

(a) 1.35kg (b) 1.86kg (c) 2.98kg (d) 4.67kg

(e) 3.7kg (f) 3.07kg (g) 5.4kg (h) 5.04kg

3. Write as **kilogrammes** using the **decimal point**.

(a) 1260g (b) 1590g (c) 2380g (d) 4960g

(e) 1kg 190g (f) 2kg 730g (g) 3kg 560g (h) 6kg 240g

4. Write as **kilogrammes** and **grammes**.

(a) 1870g (b) 2360g (c) 4820g (d) 5740g

(e) $2\frac{1}{4}$ kg (f) $3\frac{1}{2}$ kg (g) $4\frac{3}{10}$ kg (h) $6\frac{7}{10}$ kg

5. What must be **added** to each of these to make **1kg**?

(a) 850g _____ (b) 720g _____ (c) 680g _____ (d) 540g _____

(e) 0.75kg _____ (f) 0.2kg _____ (g) 0.65kg _____ (h) 0.7kg _____

6. Write as **kilogrammes** and **fractions** of a **kilogramme**.

(a) 1500g _____ (b) 2300g _____ (c) 3250g _____ (d) 4750g _____

(e) 2400g _____ (f) 1900g _____ (g) 3070g _____ (h) 5090g _____










Written Computation

- | | | | | |
|---|---|---|---|---|
| 1. $\begin{array}{r} 2.36\text{kg} \\ 1.58\text{kg} \\ + 2.65\text{kg} \\ \hline \end{array}$ | 2. $\begin{array}{r} 1.87\text{kg} \\ 2.59\text{kg} \\ + 3.68\text{kg} \\ \hline \end{array}$ | 3. $\begin{array}{r} 3.46\text{kg} \\ 1.58\text{kg} \\ + 2.94\text{kg} \\ \hline \end{array}$ | 4. $\begin{array}{r} 2.83\text{kg} \\ 3.54\text{kg} \\ + 1.38\text{kg} \\ \hline \end{array}$ | 5. $\begin{array}{r} 3.96\text{kg} \\ 1.78\text{kg} \\ + 2.64\text{kg} \\ \hline \end{array}$ |
| 6. $\begin{array}{r} 16.58\text{kg} \\ - 7.83\text{kg} \\ \hline \end{array}$ | 7. $\begin{array}{r} 26.32\text{kg} \\ - 9.57\text{kg} \\ \hline \end{array}$ | 8. $\begin{array}{r} 47.14\text{kg} \\ - 19.68\text{kg} \\ \hline \end{array}$ | 9. $\begin{array}{r} 73.46\text{kg} \\ - 28.73\text{kg} \\ \hline \end{array}$ | 10. $\begin{array}{r} 90.27\text{kg} \\ - 47.39\text{kg} \\ \hline \end{array}$ |
| 11. $\begin{array}{r} 3.24\text{kg} \\ \times 5 \\ \hline \end{array}$ | 12. $\begin{array}{r} 2.47\text{kg} \\ \times 4 \\ \hline \end{array}$ | 13. $\begin{array}{r} 4.93\text{kg} \\ \times 6 \\ \hline \end{array}$ | 14. $\begin{array}{r} 9.76\text{kg} \\ \times 3 \\ \hline \end{array}$ | 15. $\begin{array}{r} 8.69\text{kg} \\ \times 7 \\ \hline \end{array}$ |
| 16. $3 \overline{)7.65\text{kg}}$ | 17. $4 \overline{)9.76\text{kg}}$ | 18. $6 \overline{)7.92\text{kg}}$ | 19. $5 \overline{)9.65\text{kg}}$ | 20. $8 \overline{)8.96\text{kg}}$ |

Before doing these, write them in **decimal form**.

- | | |
|---|-------|
| 21. $2\text{kg } 420\text{g} + 3\frac{1}{2}\text{kg} + 1750\text{g}$ | _____ |
| 22. $1\text{kg } 580\text{g} + 2360\text{g} + 1\frac{1}{4}\text{kg}$ | _____ |
| 23. $2\frac{3}{10}\text{kg} + 1900\text{g} + 3\text{kg } 490\text{g}$ | _____ |
| 24. $2480\text{g} + 1\text{kg } 700\text{g} + 2\frac{7}{10}\text{kg}$ | _____ |
| 25. $(9\text{kg } 430\text{g} - 6\frac{9}{10}\text{kg}) \times 3$ | _____ |
| 26. $(8350\text{g} - 4\text{kg } 860\text{g}) \times 5$ | _____ |
| 27. $(9\text{kg } 240\text{g} - 3\text{kg } 680\text{g}) \div 2$ | _____ |
| 28. $(8\frac{1}{4}\text{kg} - 2\text{kg } 700\text{g}) \div 5$ | _____ |
| 29. $(2.58\text{kg} + 3\text{kg } 460\text{g} + 1\frac{1}{10}\text{kg}) \times 4$ | _____ |
| 30. $(1\text{kg } 790\text{g} + 3\frac{7}{10}\text{kg} + 2.17\text{kg}) \times 6$ | _____ |

Written Problems

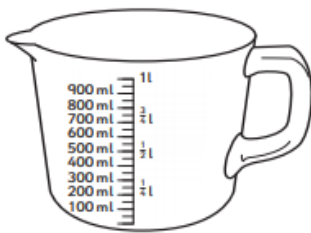
-  A box of apples weighs 4kg 360g. A box of oranges weighs 6kg 870g. What is the total weight of the two boxes? _____
-  A bag of potatoes weighs 9kg 780g.
A bag of carrots weighs 4kg 590g.
How much heavier is the bag of potatoes than the bag of carrots? _____
3. What must be added to 3-86kg to make 7kg 530g? _____
4. Find the total weight of three parcels that weigh $2\frac{3}{10}$ kg, 3kg 170g and 1-98kg respectively. _____
-  A bag of pears weighs 2kg 450g.
What is the total weight of 4 such bags? _____
-  A box of mushrooms weighs 1kg 390g.
What is the total weight of 7 such boxes? _____
-  Five pumpkins weigh 9-65kg. If they are all of equal weight, how much does 1 pumpkin weigh? _____
-  A jar of honey weighs 970g.
What is the total weight of 8 jars of honey? _____
-  A goat weighs $12\frac{1}{4}$ kg. A lamb weighs 8kg 670g.
How much heavier is the goat than the lamb? _____
10. Susan weighs 27kg 380g.
Stephen weighs 4kg 270g more than Susan.
How much do the two of them together weigh? _____
-  A box of oranges weighs 12kg 420g.
A box of apples is $3\frac{1}{2}$ kg lighter.
What is the total weight of a box of oranges and a box of apples? _____
-  A bag of green apples weighs 4kg 670g. A bag of red apples weighs 3-58kg. What is the total weight of 6 bags of green apples and 6 bags of red apples? _____

***Remember 1,000ml = 1l**

Capacity

Material	Guess	Answer
	<input type="text"/> mls	<input type="text"/> mls
	<input type="text"/> mls	<input type="text"/> mls
	<input type="text"/> mls	<input type="text"/> mls

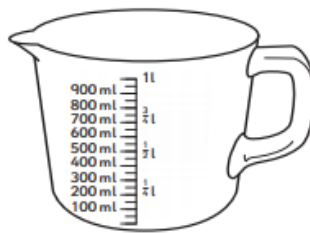
Capacity. Write in ml, fractions of a litre and in decimal form.



400ml

- l

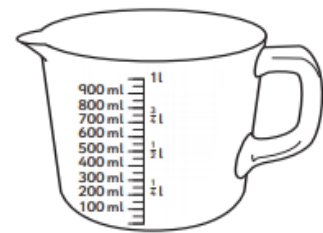
• l



ml

$\frac{1}{10}$ l

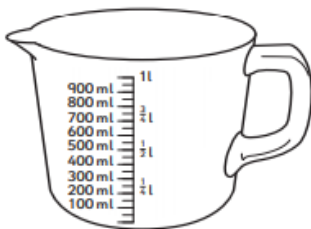
• l



ml

- l

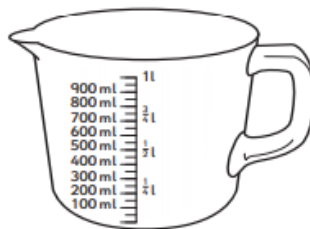
0.5l



60ml

- l

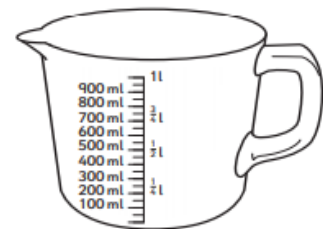
• l



ml

$\frac{72}{100}$ l

• l



ml

- l

0.32l

28. Capacity

Mental Computation

1. Write as **millilitres (ml)**.

(a) $1\text{ l } 300\text{ml}$

(b) $1\text{ l } 460\text{ml}$

(c) $1\text{ l } 840\text{ml}$

(d) $2\text{ l } 670\text{ml}$

(e) $1\frac{1}{4}\text{ l}$

(f) $1\frac{1}{2}\text{ l}$

(g) $1\frac{3}{4}\text{ l}$

(h) $1\frac{3}{10}\text{ l}$

2. (a) 1.45 l

(b) 1.78 l

(c) 2.63 l

(d) 3.97 l

(e) 4.3 l

(f) 4.03 l

(g) 6.8 l

(h) 6.08 l

3. Write as **litres**, using the **decimal point**.

(a) 1230ml

(b) 1460ml

(c) 2370ml

(d) 5780ml

(e) $1\text{ l } 180\text{ml}$

(f) $2\text{ l } 390\text{ml}$

(g) $4\text{ l } 840\text{ml}$

(h) $7\text{ l } 960\text{ml}$

4. Write as **litres** and **millilitres**.

(a) 1490ml

(b) 2560ml

(c) 3870ml

(d) 5960ml

(e) $2\frac{1}{2}\text{ l}$

(f) $3\frac{1}{4}\text{ l}$

(g) $3\frac{3}{4}\text{ l}$

(h) $5\frac{7}{10}\text{ l}$

5. What must be added to each of these to make **1 l**?

(a) 940ml

(b) 720ml

(c) 530ml

(d) 460ml

(e) 0.7 l

(f) 0.85 l

(g) 0.4 l

(h) 0.65 l

6. Write as **litres** and **fractions** of a **litre**.

(a) 2500ml

(b) 4250ml

(c) 3750ml

(d) 1700ml

(e) 4300ml

(f) 2900ml

(g) 1090ml

(h) 2370ml











Written Computation

- | | | | | |
|--|--|--|--|--|
| 1. $\begin{array}{r} 2.37\text{l} \\ 3.68\text{l} \\ + 1.50\text{l} \\ \hline \end{array}$ | 2. $\begin{array}{r} 1.94\text{l} \\ 4.38\text{l} \\ + 1.87\text{l} \\ \hline \end{array}$ | 3. $\begin{array}{r} 2.53\text{l} \\ 3.84\text{l} \\ + 2.79\text{l} \\ \hline \end{array}$ | 4. $\begin{array}{r} 3.67\text{l} \\ 4.98\text{l} \\ + 1.06\text{l} \\ \hline \end{array}$ | 5. $\begin{array}{r} 2.93\text{l} \\ 3.87\text{l} \\ + 2.76\text{l} \\ \hline \end{array}$ |
| 6. $\begin{array}{r} 26.72\text{l} \\ - 9.84\text{l} \\ \hline \end{array}$ | 7. $\begin{array}{r} 34.35\text{l} \\ - 8.67\text{l} \\ \hline \end{array}$ | 8. $\begin{array}{r} 53.16\text{l} \\ - 18.57\text{l} \\ \hline \end{array}$ | 9. $\begin{array}{r} 71.46\text{l} \\ - 37.69\text{l} \\ \hline \end{array}$ | 10. $\begin{array}{r} 80.32\text{l} \\ - 26.59\text{l} \\ \hline \end{array}$ |
| 11. $\begin{array}{r} 2.63\text{l} \\ \times 5 \\ \hline \end{array}$ | 12. $\begin{array}{r} 4.76\text{l} \\ \times 7 \\ \hline \end{array}$ | 13. $\begin{array}{r} 6.98\text{l} \\ \times 8 \\ \hline \end{array}$ | 14. $\begin{array}{r} 7.84\text{l} \\ \times 6 \\ \hline \end{array}$ | 15. $\begin{array}{r} 8.76\text{l} \\ \times 9 \\ \hline \end{array}$ |
| 16. $3\overline{)8.76\text{l}}$ | 17. $5\overline{)9.35\text{l}}$ | 18. $6\overline{)8.64\text{l}}$ | 19. $7\overline{)9.66\text{l}}$ | 20. $8\overline{)9.52\text{l}}$ |

Before doing these, write them in **decimal form**.

- | | |
|---|-------|
| 21. $2\text{l } 340\text{ml} + 1870\text{ml} + 3\frac{1}{2}\text{l}$ | _____ |
| 22. $1\text{l } 790\text{ml} + 4\frac{1}{2}\text{l} + 2860\text{ml}$ | _____ |
| 23. $2\frac{7}{10}\text{l} + 1800\text{ml} + 3\text{l } 190\text{ml}$ | _____ |
| 24. $2930\text{ml} + 1\text{l } 700\text{ml} + 3\frac{9}{10}\text{l}$ | _____ |
| 25. $(9\text{l } 280\text{ml} - 4\frac{7}{10}\text{l}) \times 4$ | _____ |
| 26. $(8320\text{ml} - 3\text{l } 650\text{ml}) \times 7$ | _____ |
| 27. $(9\text{l } 240\text{ml} - 4380\text{ml}) \div 2$ | _____ |
| 28. $(8\frac{1}{4}\text{l} - 2\text{l } 800\text{ml}) \div 5$ | _____ |
| 29. $(2.37\text{l} + 1\frac{3}{10}\text{l} + 3\text{l } 740\text{ml}) \times 3$ | _____ |
| 30. $(1\text{l } 860\text{ml} + 2\frac{7}{10}\text{l} + 3.68\text{l}) \times 7$ | _____ |

Written Problems

-  A container holds 5l 680ml. Another container holds 3l 540ml.
What is the total capacity of the two containers? _____
-  A container of oil holds 8l 350ml.
A container of paint holds 5l 780ml.
How much more does the container of oil hold? _____
- What must be added to 4·86l to make 9l 520ml? _____
- Find the total capacity of 3 containers that hold $3\frac{7}{10}$ l, 1l 240ml and 2·76l respectively. _____
-  A plastic bottle can hold 2l 270ml.
What is the total capacity of 4 such bottles? _____
-  A glass bottle holds 1l 380ml.
What is the total capacity of 8 such bottles? _____
-  Five containers hold a total of 9·85l.
If they are all of equal capacity,
how much does each hold? _____
-  Six bottles hold a total of 8l 640ml.
If they are all of equal capacity,
how much does each bottle hold? _____
-  A water tank holds 28l 640ml.
Another water tank holds $5\frac{1}{2}$ litres more than that.
How much do the two tanks together hold? _____
-  A bottle holds 2·46l of water.
A basin holds 3 times that amount.
How much water does the basin hold? _____
-  Andrew had 5·76l of orange juice.
He shared it equally among himself and his 3 friends.
How much did each get? _____
-  A family uses 2l 180ml of milk each day.
How much milk does the family use in a week? _____