CHAPTER 13 LENGTH 1

Remember: 1m = 100cm

1 (a) $\frac{1}{2}$m = 50 cm (b) $\frac{1}{4}$m = 25 cm (c) $\frac{3}{4}$m = 75 cm
(d) $\frac{1}{10}$m = 10 cm (e) $\frac{3}{10}$m = 30 cm (f) $\frac{7}{10}$m = 70 cm
(g) $\frac{9}{10}$m = 90 cm (h) $\frac{6}{10}$m = 60 cm (i) $\frac{1}{5}$m = 20 cm

2 (a) 0.1m = 10 cm (b) 0.5m = 50 cm (c) 0.7m = 70 cm
(d) 0.6m = 60 cm (e) 0.8m = 80 cm (f) 0.2m = 20 cm
(g) 0.9m = 90 cm (h) 0.3m = 30 cm (i) 0.4m = 40 cm

3 (a) 10cm = 0.1 m (b) 30cm = 0.3 m (c) 50cm = 0.50 m
(d) 70cm = 0.7 m (e) 40cm = 0.4 m (f) 80cm = 0.80 m
(g) 75cm = 0.75 m (h) 82cm = 0.82 m (i) 95cm = 0.95 m

4 (a) 110cm = 1 m 10 cm (b) 175cm = 1 m 75 cm
(c) 208cm = 2 m 8 cm (d) 290cm = 2 m 90 cm
(e) 301cm = 3 m 1 cm (f) 420cm = 4 m 20 cm

5 (a) 130cm = $1\frac{3}{10}$ m (b) 150cm = $1\frac{1}{2}$ m (c) 210cm = $2\frac{1}{10}$ m
(d) 270cm = $2\frac{7}{10}$ m (e) 260cm = $2\frac{6}{10}$ m (f) 290cm = $2\frac{9}{10}$ m

6 (a) 120cm = 1.2 m (b) 150cm = 1.5 m (c) 230cm = 2.3 m
(d) 280cm = 2.8 m (e) 310cm = 3.1 m (f) 370cm = 3.7 m

7 Put <, = or > between each pair.

(a) 160cm > 1.5m (b) 1.2m = 1m 20cm (c) 2.4m > $2\frac{2}{10}$m
(d) 350cm = 3.5m (e) 2m 10cm = 2.1m (f) $3\frac{7}{10}$cm < 3.9m
(g) 4m 90cm > 460cm (h) 280cm < $2\frac{9}{10}$m (i) $4\frac{1}{5}$m = 420cm

8 (a) The black car is 70 cm longer than the red car.

(b) The blue car is 1.2 m longer than the red car.

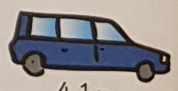
(c) The bus is 6.5 m longer than the blue car.


2m 90cm

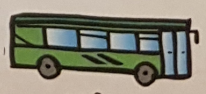
(d) If all 4 vehicles were parked one directly behind the other, what would the total length be?

(i) 21 m 20 cm

(ii) 21.2 m (iii) 2 $\frac{2}{10}$ m


4.1m


360cm


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

1 Write as centimetres.

(a) $\frac{3}{100}$m = 3 cm (b) $\frac{1}{100}$m = 1 cm (c) $\frac{23}{100}$m = 23 cm

(d) $\frac{49}{100}$m = 49 cm (e) $\frac{76}{100}$m = 76 cm (f) $\frac{99}{100}$m = 99 cm

2 What fraction of a metre are the following?

(a) 14cm = $\frac{14}{100}$ m (b) 17cm = $\frac{17}{100}$ m (c) 39cm = $\frac{39}{100}$ m

(d) 59cm = $\frac{59}{100}$ m (e) 81cm = $\frac{81}{100}$ m (f) 97cm = $\frac{97}{100}$ m

3 (a) 1cm = 0·01 m (b) 5cm = 0·05 m (c) 46cm = 0·46 m

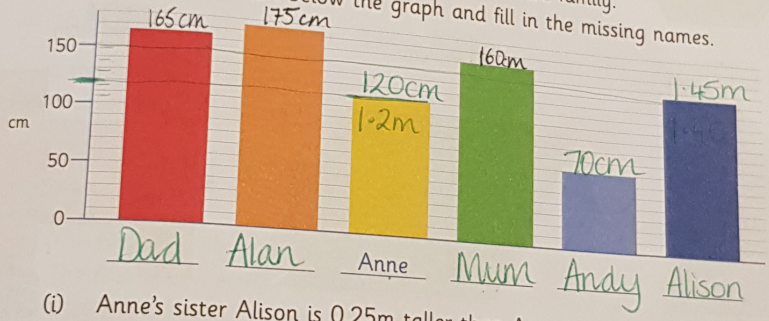
(d) 83cm = 0·83 m (e) 69cm = 0·69 m (f) 99cm = 0·99 m

4 (a) 2cm = $\frac{2}{100}$ m = 0·02 m (b) 6cm = $\frac{6}{100}$ m = 0·06 m

(c) 37cm = $\frac{37}{100}$ m = 0·37 m (d) 93cm = $\frac{93}{100}$ m = 0·93 m

5 This graph shows the height of each member of Anne's family.

(a) Read the information below the graph and fill in the missing names.



(i) Anne's sister Alison is 0.25m taller than Anne.

(ii) Their baby brother Andy is 75cm shorter than Alison.

(iii) Andy's mum is 0.05m shorter than his dad.

(iv) Anne's older brother Alan is 0.1m taller than his dad.

(b) Fill in the gaps.

(i) Dad is 1·65 m tall. (ii) Mum is 1·60 m tall.

(iii) Alison is 1·45 m tall. (iv) Anne is 1·20 m tall.

(v) Andy is 0·70 m tall. (vi) Alan is 1·75 m tall.

(c) Alan is 1.05m taller than Andy.

(d) Mum is 0.5m shorter than Dad.

(e) Alan is $\frac{1}{4}$m less than 2m tall.

(f) Alan is 0.3m taller than Alison.

CHAPTER 15 LENGTH 2

1 Change the following to m and cm.

(a) 218cm = 2 m 18 cm
(b) 320cm = 3 m 20 cm
(c) 106cm = 1 m 6 cm
(d) 402cm = 4 m 2 cm

2 Write the following as centimetres.

(a) 1m 27cm = 127 cm
(b) 3m 6cm = 306 cm
(c) 2m 70cm = 270 cm
(d) 4m 25cm = 425 cm
(e) 2m 1cm = 201 cm
(f) 3m 8cm = 308 cm

3 Write the following as metres using the decimal point.

(a) 7cm = 0·07 m
(b) 30cm = ·3 m
(c) 95cm = ·95 m
(d) 60cm = ·6 m
(e) 110cm = 1·1 m
(f) 207cm = 2·07 m

4 Change the following to metres.

(a) 1km 350m = 1,350 m
(b) 1km 90m = 1,090 m
(c) 2km 500m = 2,500 m
(d) 2km 402m = 2,402 m
(e) 3km 10m = 3,010 m
(f) 4km 50m = 4,050 m

5 Write the following as kilometres and metres.

(a) 1250m = 1 km 250 m
(b) 2904m = 2 km 904 m
(c) 3010m = 3 km 10 m
(d) 7004m = 7 km 4 m

6 Write the following as metres.

(a) $\frac{1}{4}$km = 250 m
(b) $\frac{1}{10}$km = 100 m
(c) $\frac{3}{4}$km = 750 m
(d) $\frac{3}{10}$km = 300 m
(e) $1\frac{1}{4}$km = 1,250 m
(f) $\frac{2}{5}$km = 400 m
(g) $1\frac{9}{10}$km = 1,900 m
(h) $2\frac{1}{2}$km = 2,500 m
(i) $3\frac{4}{5}$km = 3,800 m

7 What fraction of a km are the following?

(a) 100m = $\frac{1}{10}$ km
(b) 750m = $\frac{3}{4}$ km
(c) 400m = $\frac{4}{10}$ km
(d) 800m = $\frac{8}{10}$ km
(e) 250m = $\frac{1}{4}$ km
(f) 300m = $\frac{3}{10}$ km
(g) 200m = $\frac{2}{10}$ km
(h) 600m = $\frac{3}{5}$ km
(i) 150m = $\frac{150}{1000}$ km

8 Put <, = or > between these pairs.

(a) 1.5km > 1km 450m
(b) 2km 10m < 2.1km
(c) $3\frac{1}{5}$km = 3km 200m
(d) $4\frac{7}{10}$km = 4km 700m
(e) 5km 100m < $5\frac{2}{5}$km
(f) 4.8km = $4\frac{4}{5}$km

Week 18 Test

1. 67 + 15 **>** 80 (<, > or =)
2. What is the difference between 5,674 and 5,454? **220**
3. $(0{\cdot}2 \times 10) - 0{\cdot}1 =$ **1·9**
4. $(0{\cdot}5 \div 10) - 0{\cdot}01 =$ **0·04**
5. Write $\frac{13}{12}$ as a mixed number. **$1\frac{1}{12}$**
6. Count in ninths up to 1.
   $\frac{1}{9}$, **$\frac{2}{9}$**, **$\frac{3}{9}$**, **$\frac{4}{9}$**, **$\frac{5}{9}$**, **$\frac{6}{9}$**, **$\frac{7}{9}$**, **$\frac{8}{9}$**, 1
7. Measure this line. **4cm**
8. 0·25, 0·5, 0·75, **1**, **1·25**, **1·5**
9. An apple costs 43c.
   8 apples cost **€3.44**
10. **5:43** = **17** minutes to **6**
11. $3\frac{1}{4}$ litres = **3,250** ml
12. 95 mins = **1** hr **35** mins
13. Write $6\frac{9}{100}$ as a decimal fraction. **6·09**
14. 9·73 × 6 = **58·38**
15. $\frac{5}{8}$ of a number is 25.
    The whole number is **40**.
16. What fraction is unshaded?
    $\frac{33}{100}$
17. $(35 \times 10) + 15 =$ **365**
18. Which is lighter, 1·5kg or 1,050g? **1,050g**
19. How many sides has a pentagon? **5**
20. Draw a diagonal line.

Problems

21. Take a hexagon and add an equilateral triangle on each of its sides. Fit the triangles exactly. What is the name of the 3-D shape you have created and how many faces has it got? **hexagonal pyramid** **7**
22. A family travelled from Cork to Dublin. They spent $1\frac{3}{4}$ hours travelling and took a break for 20 minutes. If they arrived in Dublin at **3:30**, at what time did they set out on their journey? **journey = 2hrs 5mins** **1:25**
23. What is $\frac{1}{3}$ of a $\frac{1}{2}$ of 42? **7** $\frac{1}{3}$ of 21 = 7
24. Jane opened her book and found that the sum of the facing pages was 245. What pages did she open? **122 + 123**
25. Pat cooked 1·5kg of cocktail sausages for a party. Only $\frac{3}{5}$ were eaten. What weight of sausages was left? **600g** or 0·6kg
    5 | 1,500g
    300 ×
    3
    900g = eaten

/25

a) 5.25kg **2** kg **600** g (d) $6\frac{3}{5}$kg **3** kg **400** g

c) 7.4kg

tusa san áireamh *you included*

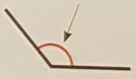
SEACHTAIN 19 • LÁ 3

Week 19 Test

1. 6,440 + 202 = 6642
2. 500 − 245 = 255
3. (9 × 3) × 3 = 81
4. (60 ÷ 100) + 0·4 = 1
5. Write $\frac{2}{12}$ in its lowest terms. 1/6
6. | 63 | |
   |---|---|
   | 7 | 9 |
   7 × 9 → 9 × 7
7. Write the largest decimal fraction possible using the digits 9, 7, 5 and 1. 975·1
8. How much heavier is 56·5kg than 53·95kg? 2·55kg
9. €50 − €27·30 = €22·70
10. $\frac{3}{5}$ of a number is 33. What is the whole number? 55
11. This 3-D shape is a square based pyramid. It has 5 vertices.

12. Find the difference between 7:00 and 9:30. 2:30
13. What is the chance of being at school at 4 in the morning? unlikely (likely, unlikely or certain)
14. The capital letter W has a vertical (horizontal/vertical) line of symmetry.
15. $\frac{3}{4}$ < $\frac{7}{8}$ (<, > or =)
16. 1,350ml = 1 l 350 ml
17. This is the net of a hexagonal pyramid.

18. Write $2\frac{2}{3}$ as an improper fraction. 8/3
19. Write 4:40 in analogue form. ~~ten to~~ four forty
20. What type of angle is shown? obtuse



Problems

21. Susan saved €5·75 and her friend saved €8·70. Together they want to buy some new books costing €18·95. How much more money do they need to save? €4·50

€5·75 + €8·70 = €14·45 ; 18·95 − 14·45 = 04·50

22. A carpenter had a plank of wood $5\frac{1}{2}$m long. He cut a piece $2\frac{1}{4}$m off the plank and then cut another piece 145cm off. How much was left? 1·80m

45·50 − 3·70 = 1·80 ; 2·25m + 1·45m = 3·70

23. John drinks 2·33 litres of water each day. How much water does he drink in a week? 16·31l

2·33 × 7 = 16·31

24. A TV programme started at 6:30. The programme was $1\frac{3}{4}$ hours long. There were two 5-minute advertisement breaks. At what time did the programme end? 8:25

25. What number is 315 less than 56 times 23? 973

56 × 23 = 1288 ; 1288 − 315 = 973

/25