

Chapter $\Rightarrow$ 12

Measurement

(Concept check 12a)

(1) Measure the length of the following objects in cm and mm.

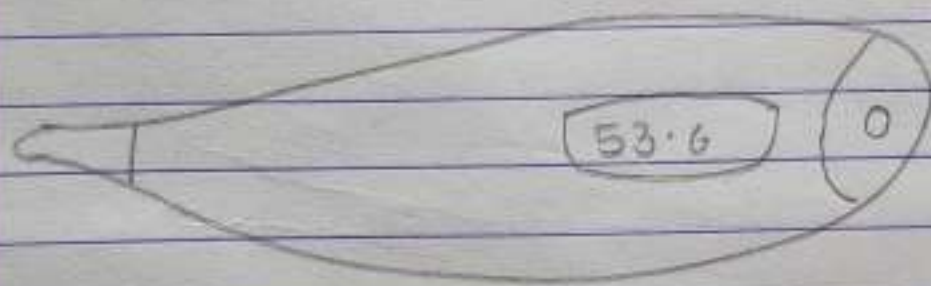
(a)



$$4\text{m} = 400\text{cm}$$

$$400\text{cm} = \cancel{4000\text{mm}}$$

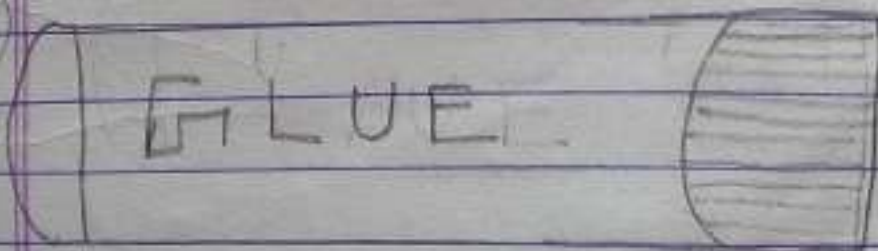
(b)



$$6\text{m} \Rightarrow 600\text{cm}$$

$$600\text{cm} = \cancel{6000\text{mm}}$$

(c)



$$9\text{m} \Rightarrow 900\text{cm}$$

$$900\text{cm} = \cancel{9000\text{mm}}$$

(2) Convert the given bigger units into smaller units.

(a) $4 \text{ Km} \Rightarrow 4000 \text{ m}$.

(b) $5 \text{ Km } 505 \text{ m} \Rightarrow 5505 \text{ m}$.

(c) $13 \text{ Km} \Rightarrow 13000 \text{ m}$.

(d) $2 \text{ Km } 237 \text{ m} \Rightarrow 2237 \text{ m}$.

(e) $45 \text{ m} \Rightarrow 4500 \text{ cm}$.

(f) $89 \text{ m } 12 \text{ cm} \Rightarrow 8912 \text{ cm}$.

(g) $32 \text{ m} \Rightarrow 3200 \text{ cm}$.

(h) $43 \text{ m } 9 \text{ cm} \Rightarrow 439 \text{ cm}$.

(i) $18 \text{ cm} \Rightarrow 180 \text{ mm}$.

(j) $9 \text{ cm } 5 \text{ mm} \Rightarrow 95 \text{ mm}$.

(k) $210 \text{ cm} \Rightarrow 2100 \text{ mm}$.

(l) $12 \text{ cm } 6 \text{ mm} \Rightarrow 126 \text{ mm}$.

(3) Convert the given smaller units into bigger units

(a) $5000 \text{ m} \Rightarrow 5 \text{ Km}$

(b) $4232 \text{ m} \Rightarrow 4 \text{ Km} \Rightarrow 232 \text{ m}$

(c) $10000 \text{ m} \Rightarrow 10 \text{ Km}$

(d) $300 \text{ g m} \Rightarrow 3 \text{ Km} \Rightarrow 3 \text{ m}$

(e) $600 \text{ cm} \Rightarrow 6 \text{ m}$

(f) $3560 \text{ cm} \Rightarrow 35 \text{ m} \Rightarrow 60 \text{ cm}$

(g) $800 \text{ cm} \Rightarrow 8 \text{ m}$

(h) $2054 \text{ cm} \Rightarrow 20 \text{ m} \Rightarrow 54 \text{ cm}$

(i) $70 \text{ mm} \Rightarrow 7 \text{ cm}$

(j) $55 \text{ mm} \Rightarrow 5 \text{ cm} \Rightarrow 5 \text{ mm}$

(k) $160 \text{ mm} \Rightarrow 16 \text{ cm}$

(l) $205 \text{ mm} \Rightarrow 20 \text{ cm} \Rightarrow 5 \text{ mm}$

(12.4)

(1) Solve the following.

(a) $5 \text{ km } 708 \text{ m} + 26 \text{ km } 192 \text{ m} \rightarrow 31 \text{ km } 400 \text{ m}$

(b) $15 \text{ m } 255 \text{ m} + 26 \text{ m } 60 \text{ m} = 41 \text{ m } 315 \text{ m}$

(c) $25 \text{ km } 109 \text{ m} - 27 \text{ km } 39 \text{ m} \rightarrow 58 \text{ km } 10 \text{ m}$

(d) $78 \text{ km } 9 \text{ m} - 32 \text{ km } 103 \text{ m} \rightarrow 45 \text{ km } 902 \text{ m}$

(e) $53 \text{ m } 10 \text{ m} - 46 \text{ m } 95 \text{ m} \rightarrow 6 \text{ m } 15 \text{ m}$

(f) $56 \text{ m } 11 \text{ m} - 24 \text{ m } 8 \text{ m} \rightarrow 32 \text{ m } 5 \text{ m}$

(2) Give a relay - - - - - Show?

$\Rightarrow$ In a relay race, the distance is

$41 \text{ km } 304 \text{ m}$

$\Rightarrow$ And the distance is $31 \text{ km } 406 \text{ m}$.

$\Rightarrow$ distance and the distance is

show, $41 \text{ km } 304 \text{ m}$

$- 31 \text{ km } 406 \text{ m}$

$0 \text{ km } 808 \text{ m}$

(3) Betraj travelled - - - - - village?

=> Betraj travelled by a bus for 42

Km 250 m.

=> And then he rode a tricycle for

to reach his village, 3 Km 750 m

=> distance did he travel in all,

to reach his village. $42 \text{ Km } 250 \text{ m}^{(1)}$
 $+ 3 \text{ Km } 750 \text{ m}^{(1)}$
 $46 \text{ Km } 000 \text{ m}$

(4) Rajeev - - - - - Rajeev

=> Rajeev took a rickshaw and travel

led ~~to~~ reach a bus stop. 2 Km
then

=> He travelled by bus and finally

walked 18 Km 500 m.

=> to reach a bus stop. 1 Km 500 m

=> distance covered by Rajeev.

10 Km 500 m
41 Km 500 m
~~20 Km 000 m~~

(5) The length ----- wire?

=> The length of a wire is 35 cm 8 mm

=> If a wire of length is added to this wire 17 cm 9 mm.

=> then what will be the total length of the wire.

~~35 cm 8 mm
+ 17 cm 9 mm
53 cm 7 mm~~

(6) length ----- much?

=> length of an A-4 size sheet of paper is 29 cm 1 mm.

=> And the length of a legal size sheet of paper is 35 cm 6 mm.

=> longer and by how much?

$$\begin{array}{r}
 35 \text{ cm } 6 \text{ mm} \\
 + 79 \text{ cm } 9 \text{ mm} \\
 \hline
 1 \text{ m } 14 \text{ cm } 15 \text{ mm}
 \end{array}$$

(8) A painter -----

⇒ A painter climbed up a ladder of height to point a wall, 3m 35cm.

a) If the painter's height is 1m 68cm

→ total height at which the painter

$$\begin{array}{r}
 \text{could reach} \\
 3 \text{ m } 35 \text{ cm} \\
 + 1 \text{ m } 68 \text{ cm} \\
 \hline
 5 \text{ m } 03 \text{ cm}
 \end{array}$$

(9) The height ----- stool

a) The height of a ladder is 3m 35cm.

a) If a stool which is placed next to

the ladder is tall 79cm

→ taller is the ladder than the stool

$$\begin{array}{r}
 3 \text{ m } 35 \text{ cm} \\
 - 79 \text{ cm} \\
 \hline
 2 \text{ m } 56 \text{ cm}
 \end{array}$$

(10) The total ~~length of a large truck~~ Truck? (K)
 $\Rightarrow$ The total length of a large truck (A)
 $21\text{ m } 23\text{ cm}$ (B)
 $\Rightarrow$ If the length of the container is (C)
 $12\text{ m } 35\text{ cm}$ (D)
 $\Rightarrow$ find the length of the front portion (E)
of the truck. $21\text{ m } 23\text{ cm}$
 $+ 12\text{ m } 35\text{ cm}$
 $33\text{ m } 58\text{ cm}$ (F)

EX 12C

(1) Fill in the blanks.
(a) $5\text{ Kg} = 5000\text{ g}$ (f) $12\text{ Kg } 406\text{ g} = 2406\text{ g}$
(b) $3000\text{ mg} = 3\text{ g}$ (g) $16\text{ g} = 16000\text{ mg}$
(c) $15\text{ Kg} = 15000\text{ g}$ (h) $7\text{ g } 25\text{ mg} = 7025\text{ g}$
(d) $3\text{ Kg } 375\text{ g} = 3375\text{ g}$ (i) $4000\text{ g} = 4\text{ Kg}$
(e) $7\text{ g} = 7000\text{ mg}$ (j) $14\text{ g } 190\text{ mg} = 14190\text{ mg}$

(k) $17000g = 17Kg$

(l) $4292g = 4Kg\ 292g$

(m) $6732g = 6Kg\ 732g$

(n) $6505g = 6Kg\ 505g$

(o) $18000mg = 18g$

(p) $5785mg = 5g\ 785mg$

(3) Add to subtract

(a)
$$\begin{array}{r} 23g\ 271mg \\ + 67g\ 687mg \\ \hline 90g\ 958mg \end{array}$$

(b)
$$\begin{array}{r} 19Kg\ 231g \\ + 27Kg\ 871g \\ \hline 47Kg\ 652g \end{array}$$

(c)
$$\begin{array}{r} 12g\ 810mg \\ - 8g\ 900mg \\ \hline 3g\ 910mg \end{array}$$

(d)
$$\begin{array}{r} 25Kg\ 540g \\ - 12Kg\ 270g \\ \hline 13Kg\ 270g \end{array}$$

(4) Solve the following word problems

- solve

(a) A chef ----- cake? (c)

=> A chef baked a cake weighing $1\text{Kg } 678\text{g}$

=> After decorating the cake with cream

its weight increased by 167g

=> final weight of the cake

1Kg	678g
$+$	167g
$1\text{Kg } 845\text{g}$	

(b) A vegetable seller had a sack of potatoes

- sack ----- potatoes? (c)

=> A vegetable seller had a sack of potatoes weighing $95\text{Kg } 567\text{g}$

=> He sold potatoes from the sack $12\text{Kg } 81\text{g}$

=> find weight of the remaining potatoes

$$\begin{array}{r}
 4\frac{1}{2} \text{ Kg } 567 \text{ g} \\
 + 12 \text{ Kg } 781 \text{ g} \\
 \hline
 58 \text{ Kg } 348 \text{ g}
 \end{array}$$

(c) Shikari had a ----- much

-) Shikari had a silver coin weight

$\Rightarrow$ 10g 500mg

$\Rightarrow$ and a bronze coin weighing 9g 200mg

$\Rightarrow$ which coin was heavier and lighter

$$\begin{array}{r}
 \text{--- much } 9\text{g } 200\text{mg} \\
 - 10\text{g } 500\text{mg} \\
 \hline
 3\text{g } 800\text{mg}
 \end{array}$$

(d) Shikha ----- used

$\Rightarrow$ She used milk powder 25g 375mg

$\Rightarrow$ and maida used 25g 435mg

$\Rightarrow$ and sugar used 17g 235mg

$\Rightarrow$ total weight of all ingredients use

- d.

$$\begin{array}{r}
 25 \text{ g} \\
 25 \text{ g} \\
 + 17 \text{ g} \\
 \hline
 67 \text{ g}
 \end{array}$$

Ex 12 d.

(1) Fill in the blanks with the correct unit of capacity for ml:

(a) capacity of tea spoon = 5 ml

(b) water in a big bucket = 5 l

(c) Honey in a Kalash = 12 ml

(d) Medicine in an injection = 15 ml

(e) Petrol in car's tank = 512 ml

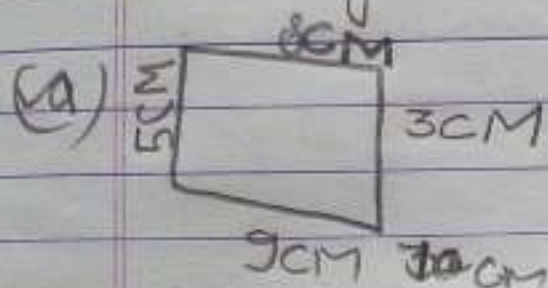
(f) Petrol in an aeroplane's tank = 69 ml

Singh
 20/11/19

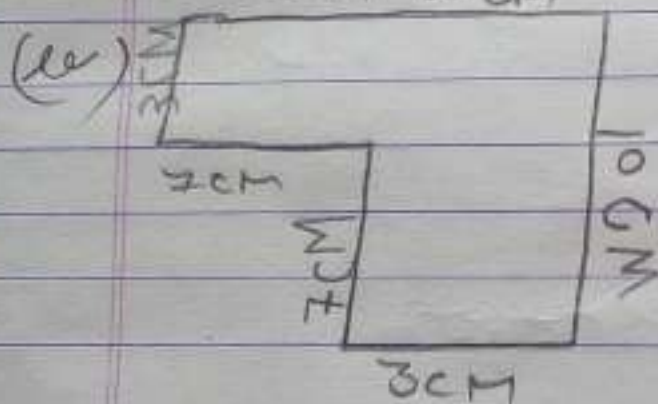
Chapter $\Rightarrow$ 13

Perimeter and Area

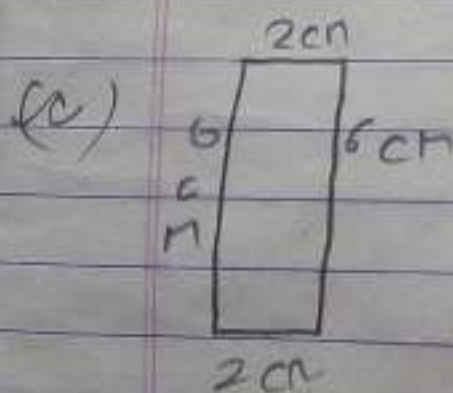
(2) Find the perimeter of the following shapes.



$$\text{Perimeter} \Rightarrow 25 \text{ cm}$$



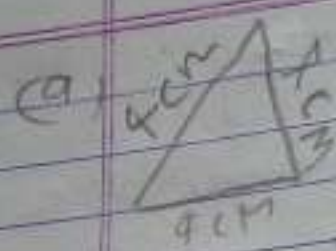
$$\text{Perimeter} = 41 \text{ cm}$$



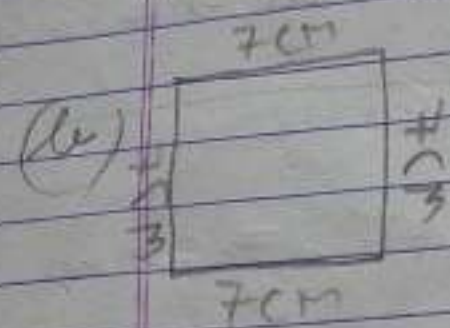
$$\text{Perimeter} = 16 \text{ cm}$$

(3) Use shortcut learnt to find the perimeter of the following shapes

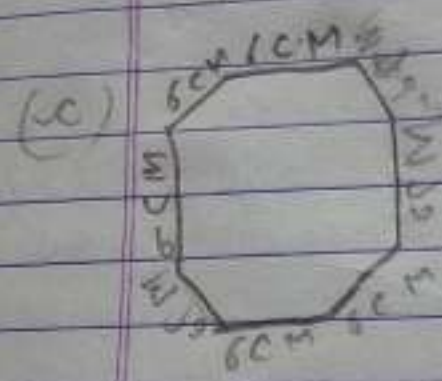
(2)



Perimeter $\rightarrow 12 \text{ cm}$



Perimeter $\rightarrow 20 \text{ cm}$



Perimeter $\rightarrow 48 \text{ cm}$

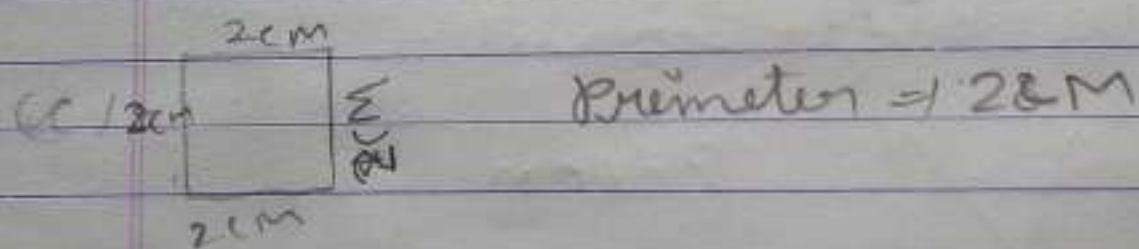
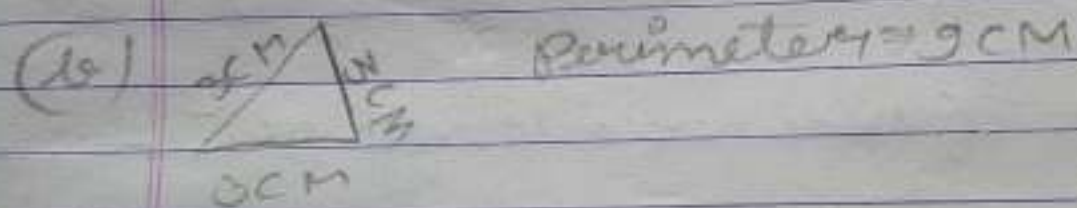
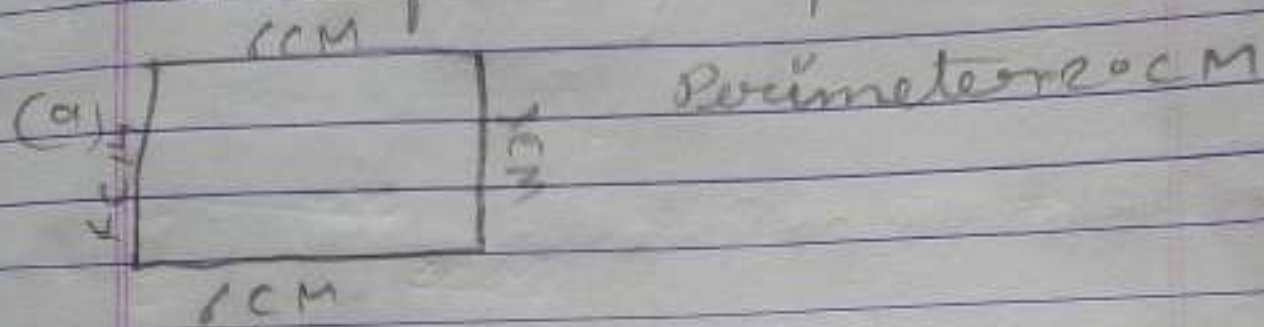
$8 \times 6 = 48$

(3) The perimeter of each shape is given below it. using it find the find the missing length.



Ex	48 m	32 m
	- 16 m	- 12 m
	32 m	20 m

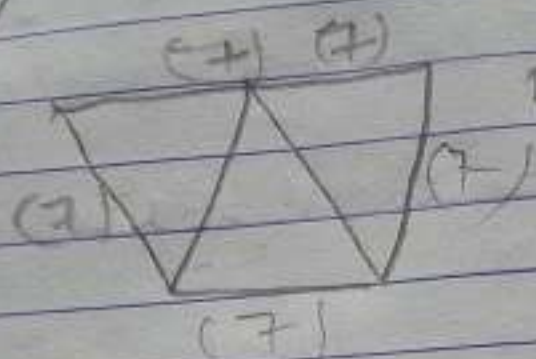
- (2) Measure the length of the sides of the following shapes and then find their perimeter.



- (3) The shape given alongside is made up of triangles of equal size. If the length of each side of a triangle is 7 cm what is the perimeter of this shape.

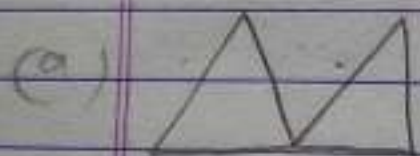


Ans $\Rightarrow$



$$P = 35 \text{ cm}$$

(*) Find the perimeter of the following.
Assume that each side of the triangle and square has a length of 1 m. P stands for perimeter.



$$P = 6 \text{ cm}$$



$$P = 8 \text{ cm}$$



$$P = 12 \text{ cm}$$

(5) Solve the following word problem.

(a) A rectangular park --- has
--- km?

=> A rectangular park long 100m

=> and wide needs to be fenced 50m

=> fencing will be needed for this

park. 100m
- 50m
50m

(b) Every morning --- morning

=> Every morning Roman jogs around
a square park long.

=> he jogs square park long 200m

=> distance does he jogs every morning

(5) Solve the following word problems

-ms

(a) length of rectangular park = 100 m

⇒ Breadth of rectangular park = 50 m

⇒ Fencing (Perimeter) needs for this park

$$\Rightarrow 2 \times (l + b)$$

$$\Rightarrow 2 \times (100 + 50)$$

$$\Rightarrow 2 \times 150$$

$$= 300 \text{ m}$$

(b) Length of square park = 200 m

⇒ Distance to run jog everyday = 2×200

$$= 400 \text{ m}$$

(c) Find the perimeter of the window shown alongside

