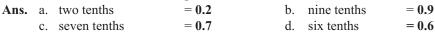
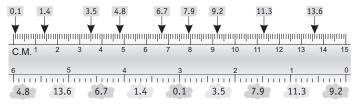
2. Write these decimals in figures.



e. one and three tenths = 1.3 f. two and one tenth = 2.1

3. Write the decimals for the points marked on the scale. Choose from the clouds :





Exercise 6.2

1. Complete the table for the coloured part :

Ans.

	Coloured Parts	Decimal form	Read as
a.		1.15	one and fifteen hundredths
b.		1.50	one and fifty-hundredths
c.		1.77	one and seventy seven hundredths
d.		2.25	Two and twenty-five hundredths

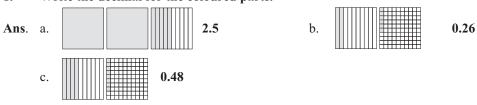
2. Write as decimals:

	* *	rice as accimais.	
Ans.	a.	two hundredths	0.02
	b.	one and three hundredths	1.03
	c.	twenty-four and thirty-six hundredths	24.36
	d.	eighty-nine and sixty-four hundredths	89.64

3. In the number of 24, 68, the digit $\underline{6}$ is in the tenths place, $\underline{4}$ is in the ones place, 2 is the $\underline{\text{tens}}$ place and 8 is in the $\underline{\text{hundredths}}$ place.

Exercise 6.3

1. Write the decimal for the coloured parts.



Write the decimal number

- •	* * .	ite the decimal number.	
Ans.	a.	twelve and two tenths	12.2
	b.	two and seven thousandths	2.007
	c.	three and fifty-four hundredths	3.54
	d.	one and ninety-nine thousandths	1.099
	e.	twenty and twenty-five thousandths	20.025
	f.	five and two hundred sixty thousandths	5.260
	g.	eight and one hundred twenty-five thousandths	8.125

h. sixteen and two thousandths 16.002

For 295.781, write the digit in the

J.	1.0	1 2/3./01, WIIIC U	ne digit in the			
Ans.	a.	tens place	9	b.	tenths place.	7
	c.	hundreds place.	2	d.	hundredths place.	8
	e.	ones place.	<u>5</u>	f.	thousandths place.	1

4. Build a decimal number with

Ans.	a.	T	О		t	h	th	b.	Т	О	t	h	th
		4	2	•	6					3	0	5	
								•					

c.	О	t	h	th
	0	0	8	6

Exercise 6.4

Convert into decimals

1.	Convert into decin	1415.		
Ans.	a. $\frac{7}{100} = 0.07$	b. $\frac{5}{100} = 0.05$	c. $\frac{64}{100} = 0.64$	$d. \frac{32}{1000} = 0.032$
	e. $\frac{175}{100} = 1.75$	f. $\frac{9}{1000} = 0.009$	g. $\frac{378}{1000} = 0.378$	h. $\frac{1964}{1000} = 1.964$

Convert into fractions.

2. Convert into fractions.

Ans. a.
$$8.01 = \frac{801}{100}$$
 b. $6.35 = \frac{6.35}{1.00} = \frac{635}{100} = \frac{127}{20}$ c. $4.001 = \frac{4001}{1000}$ d. $16.8 = \frac{168}{10} = \frac{84}{5}$ e. $0.008 = \frac{0008}{1000} = \frac{1}{125}$ f. $0.01 = \frac{001}{100} = \frac{1}{100}$ g. $5.809 = \frac{5809}{1000}$ h. $20.02 = \frac{2002}{100} = \frac{1001}{50}$

Write a decimal for each of the following.

3. Write a decimal for each of the following.

Ans. a.
$$1 + \frac{4}{10} = 1 + 0.4 = 1.4$$
b. $\frac{6}{10} + \frac{4}{100} = 0.6 + 0.04 = 0.64$
c. $\frac{5}{10} + \frac{3}{100} + \frac{1}{1000}$
d. $40 + 1 + \frac{3}{100}$

$$= 0.5 + 0.03 + 0.001 = 0.531$$
e. $50 + 1 + \frac{7}{1000}$

$$= 50 + 1 + 0.007 = 51.007$$
g. $6 + \frac{1}{10} + \frac{3}{1000}$

$$= 6 + 0.1 + 0.003 = 6.103$$
b. $\frac{6}{10} + \frac{4}{100} = 0.6 + 0.04 = 0.64$
d. $40 + 1 + \frac{3}{100}$

$$= 40 + 1 + 0.03 = 41.03$$
f. $7 + \frac{2}{10} + \frac{9}{100} + \frac{3}{1000}$

$$= 7 + 0.2 + 0.09 + 0.003 = 7.293$$
h. $10 + 9 + \frac{2}{100} + \frac{5}{1000}$

$$= 10 + 9 + 0.02 + 0.005 = 19.025$$

i.
$$\frac{5}{10} + \frac{9}{1000} = 0.5 + 0.009 = 0.509$$

4. Write a decimal for each of the following.

Ans. a.
$$3 + 0.01 = 3.01$$

c.
$$0.5 + 0.02 + 0.001 = 0.521$$

e.
$$5 + 0.1 + 0.09 + 0.008 = 5.198$$

b.
$$1 + 0.2 + 0.08 = 1.28$$

d.
$$10 + 4 + 0.009 = 14.099$$

f.
$$0.3 + 0.008 = 0.308$$

5. Write the fractional expansion for each of the following.

Ans. a. 4.5

T	О	t	h
	4	5	

$$4.5 = 4$$
 ones + 5 tenths
= fractional expansion
 $-4 + \frac{5}{2}$

T	О	t	h	th
	0	2	3	5

$$0.235 = 2 \text{ tenths} + 3 \text{ hundreds}$$

$$+ 5 \text{ thousandths}$$

$$= \frac{2}{10} + \frac{3}{100} + \frac{5}{1000}$$

О	t	h	th
9	1	0	7

9.107 = 9 ones + 1 tenth
+ 7 thousandths
=
$$9 + \frac{1}{10} + \frac{7}{1000}$$

g. 2.308

О	t	h	th
2	3	0	8

$$2.308 = 2 \text{ ones} + 3 \text{ tenths}$$

+8 thousandths

$$=2+\frac{3}{10}+\frac{8}{1000}$$

b. 15.16

T	О	t	h	th
1	5	1	6	

$$15.16 = 1 \text{ ten} + 5 \text{ ones} + 1 \text{ tenth}$$

+ 6 hundredths
= $10 + 5 + \frac{1}{10} + \frac{6}{100}$

d. 7.123

Т	О	t	h	th
	7	1	2	3

$$7.123 = 7$$
 ones + 1 tenth + 2 hundredths
+ 3 thousandths
= $7 + \frac{1}{2} + \frac{2}{3} + \frac{3}{3}$

f. 126.3

Н	Т	О	t	h	th
1	2	6	3		

$$126.3 = 1 \text{ hundreds} + 2 \text{ tens}$$

 $=126+\frac{3}{10}$

О	t	h	th
1	0	0	9

$$1'009 = 1 \text{ ones} + 9 \text{ thousands}$$

= $1 + \frac{9}{1000}$

Exercise 6.5

Write the equivalent decimals:

Ans. a.
$$0.7 = 0.70 = 0.700$$

d. **0.5** = $0.50 = 0.500$

2. Tick (\checkmark) the group which shows like decimals :





3. Convert unlike decimals into like decimals.

Ans. a. 8.4 8.<u>41</u>

Like decimal 8.40 8.41

c. 7.1, 7.01, 7.<u>001</u>

$$\rightarrow$$
 3 places

Unlike decimal 7.1, 7.01, 7.001

Like decimal 7.100, 7.010, 7.001

e. 7.28 8 99.<u>009</u>

Unlike decimal 7.28 8 99.009
$$\downarrow \qquad \downarrow \qquad \downarrow \qquad \downarrow$$

Lime decimal 7.280 8.000 99.009

b. 1.61, 24.3, 1.<u>678</u>

$$\rightarrow$$
 3 places
Unlike decimal 1.61, 24.3, 1.678

Like decimal 1.610 24.300 1.678

d. 30.4 42.61 100.<u>123</u>

$$\downarrow$$
 3 places
Unlike decimal 30.4, 42.61, 100.123

Like decimal 30.400 42.610 100.123

60.1 6.01 1.006

Unlike decimal 60.1 6.01 1.006
$$\downarrow$$
 \downarrow \downarrow

Like decimal 60.100 6.010 1.006

Exercise 6.6

1. Compare each pair of numbers and put >, < or = in the \bigcirc .

Ans. a. 2.35 < 2.36

b. 0.3 > 0.2

c. 0.80 < 0.81

d. 5.3 < 5.4

e. 16.01 < 16.07

f. 6.6 = 6.60

g. 9.1 > 9.01

h. 0.275 < 1

i. 3.2 > 0.32

2. Rewrite the ascending order.

Ans. a. 1.1, 1.01, 0.11, 1.11

First we arrange the decimals on the place value chart

О		t	h	th
1	•	1		
1		0	1	
	•	1	1	
1	•	1	1	

We find that, 1.11 > 1.1 > 1.01 > .11

Thus, the ascending order = .11, 1.01, 1.1, 1.11

b. 2.04, 2.4, 2.24, 2.1

T	0		t	h	th
	2	•	0	4	
	2	•	4		
	2	•	2	4	
	2		1		

We find that, 2.4 > 2.24 > 2.1 > 2.04

Thus, the ascending order = 2.04, 2.1, 2.24, 2.4

Ans.

c. 0.5, 0.52, 0.25, 0.252

First we arrange the decimals on place value chart

О		t	h	th
0	•	5		

0	•	5	2	
0	•	2	5	
0	•	2	5	2

We find that, 0.52 > 0.5 > .252 > 0.25

Thus, the ascending order = 0.25, 0.252, 0.5, 0.52 Ans.

d. 21.1, 2.11, 0.211, 0.121

First we arrange the decimals on the place value chart

T	0	•	t	h	th
2	1	•	1		
	2		1	1	
	0		2	1	1
	0		1	2	1

We find that, 21.1 > 2.11 > 0.211 > 0.121

Thus, the ascending order = .121, 0.211, 2.11, 21.1 Ans.

e. 8.0, 0.08, 0.008, 0.80

First we arrange the decimals on the place value chart

О		t	h	th
8	•	0		
	•	0	8	
		0	0	8
		8	0	

We find that, 8.0 > 0.80 > 0.08 > 0.008

Thus, the ascending order = 0.008, 0.08, 0.80, 8.0

Ans.

f. 0.35, 3.5, 0.035, 35.0

First we arrange the decimals on the place value chart

T	0		t	h	th
	0	•	3	5	
	3	•	5		
	0	•	0	3	5
3	5	•	0		

We find that, 35 > 3.5 > 0.35 > 0.035

Thus, the ascending order = 0.035, 0.35, 3.5, 35

Ans.

3. Rewrite the descending order.

a. 6.4, 6.46, 0.646, 4.66

First we arrange the decimals on the place value chart

О	•	t	h	th
6	•	4		
6	•	4	6	
0	•	6	4	6
4		6	6	

We find that, 6.46 > 6.4 > 4.66 > 0.646

Thus, the descending order = 6.46, 6.4, 4.66, 0.646

Ans.

b. 7, 4.7, 7.4, 0.47

First we arrange the decimals on the place value chart

О		t	h	th
7	•	0		
4	•	7		
7		4		
0		4	7	

We find that, 7.4 > 7 > 4.7 > 0.47

Thus, the descending order = 7.4, 7, 4.7, 0.47

Ans.

c. 9.21, 19.2, 2.91, 1.29

First we arrange the decimals on the place value chart

Т	0	•	t	h	th
	9	•	2	1	
1	9	•	2		
	2	•	9	1	
	1		2	9	

We find that, 19.2 > 9.21 > 2.91 > 1.29

Thus, the descending order = 19.2, 9.21, 2.91, 1.29

Ans.

d. 0.3, 0.41, 0.14, 0.03

First we arrange the decimals on the place value chart

О		t	h	th
	•	3		
	•	4	1	
	•	1	4	
		0	3	

We find that, 0.41 > 0.3 > 0.14 > 0.03

Thus, the desending order = 0.41, 0.3, 0.14, 0.03

Ans.

e. 8.62, 86.2, 0.862, 862.0

	T	О	•	t	h	th
		8	•	6	2	
	8	6		2		
		0	•	8	6	2
8	6	2	•	0		

We find that, 862 > 86.2 > 8.62 > 0.862

Thus, the ascending order = 862.0, 86.2, 8.62, 0.862 Ans.

f. 0.95, 9.5, 95.0, 0.095

First we arrange the decimals on the place value chart

Т	0		t	h	th
		•	9	5	
	9	•	5		
9	5		0		
	0		0	9	5

We find that, 95 > 9.5 > 0.95 > 0.095

Thus, the desending order = 95, 9.5, 0.95, 0.095

Ans.

Exercise-6.7

1. Arrange in columns and add.

$$\begin{array}{r}
19.00 \\
+3.87 \\
\hline
22.87
\end{array}$$

a. 19 + 3.87

$$\begin{array}{ccc}
 & 4.7 + 2.8 \\
 & 1 \\
 & 4.7 \\
 & 2.8 \\
 & \hline{7.5}
\end{array}$$

c.
$$8.71 + 126.3$$

$$\begin{array}{r}
1 & 1 \\
8 & .71 \\
\underline{126.30} \\
135.01
\end{array}$$

d.
$$0.1 + 0.11 + 1$$

e.
$$6.42 + 6.041 + 3.1$$

$$\begin{array}{c}
0.1 \\
0.11 \\
1.00 \\
\hline
1.21
\end{array}$$

$$\begin{array}{r}
 6.420 \\
 6.041 \\
 \hline
 3.100 \\
 \hline
 \hline
 15.561 \\
 \end{array}$$

$$\begin{array}{r}
6.930 \\
0.487 \\
\hline
21.517
\end{array}$$

2. Solve these word problems.

1

a. Distance travel by Mr Sharma before lunch = 3 6 . 8 km

Distance travel by Mr Sharma after lunch = 1 2 . 9 km

Total distance that he drove in the day = 49.7 km

Thus, he drove 49.7 km.

Ans.

b. Cost of a tennis racket =
$$₹650.75$$

Cost of a box of six balls = $₹110.50$
Total cost = $₹761.25$

Thus, the total cost both the item is ₹ 761.25.

Ans.

c. Distance that Rohan jumped in first round = 1 . 2 0 Distance that Rohan jumped in second round = 0 . 9 7 Distance that Rohan jumped in third round = $\frac{1}{3}$. 3 0 Total distance he jumped = $\frac{3}{3}$. 4 7

Thus, Rohan jumped 3.47 m in total.

Exercise-6.8

1. Subtract the following.

2. Arrange in the columns and subtract.

Ans. a.
$$3.25 - 1.46$$

$$\begin{array}{r} 3.25 \\ -1.46 \\ \hline 1.79 \end{array}$$

3. Solve these word problems.

Ans. a. We know that, speed is defined as the distance travelled by a person on a vehicle in an hour.

So, the speed of winning car = 57.2 km/h

the speed of second car = 52.9 km/h

On comparing we find 57.2 km/h > 52.9 km/h.

More speed of winning car = (57.2 - 52.9) km/h.

$$=4.3 \text{ km/h}$$

Thus, the winning car is 4.3 km/h faster than the second car.

b. Money that Rahul had = ₹ 100

Cost of baseball bat = ₹ 75.75

Money left with him = ₹ 100 - ₹ 75.75

4 15

Thus, ₹ 24.25 is left with him.

Ans.

c. Money that monu has = ₹55.50

Money that he spent
$$= -$$
₹ 27.00

Thus he was ₹ 28.50 left with him.

18

d. Cost of Ruskin bond book = ₹285.00

Money that Salman has saved = - ₹ 190.50

Money short to buy the box = 94.50

Thus, she need to save ₹ 94.50 to buy the book.

Ans.

e. Length of the string = 5.5 m

Length of the she used = -3.25 m

String left with her = 2.25 m

Thus, 2.25 m string left with her.

Ans.

Exercise-6.9

1. Put the decimal point at the correct place in the given product :

Ans. a. $8 \times 0.2 = 16$

one decimal places

We put the decimal in the product after one place from the right.

4

So,
$$8 \times 0.2 = 1.6$$

Ans.

- b. $9 \times 0.03 = 27$
 - 2 decimal places
 - We put the decimal point after 2 places from the right.

Ans.

So,
$$9 \times 0.03 = 0.27$$

Ans.

- c. $1.05 \times 3 = 315$
 - 2 decimal places
 - So, $1.05 \times 3 = 3.15$ Ans.
- e. $16 \times 0.04 = 64$ 2 decimal place
 - So, $16 \times 0.04 = 0.64$
- d. $50 \times 1.3 = 650$ one decimal place
 - So, $50 \times 1.3 = 65.0$
- f. $1.5 \times 7 = 105$
 - one decimal place So, $1.5 \times 7 = 10.5$

Ans.

Ans.

2. Find the product :

- **Ans.** a. 1×0.2
 - $\begin{array}{c}
 0.2 \\
 \times 1 \\
 \hline
 0.2
 \end{array}$
- b. 0.2×3
 - $\begin{array}{c}
 0.2 \\
 \times 3 \\
 \hline
 0.6
 \end{array}$
- c. 12×0.1
 - 0.12×0.1 1.2

- d. 0.11×3
 - $0.11 \times 3 \over 0.33$
- e. 10 × 0.5 1 0
- $\begin{array}{r}
 1 0 \\
 \times 0.5 \\
 \hline
 5.0
 \end{array}$
- f. 0.8×3
 - 0.8×3 2.4

- g. 0.06×5
 - 0.06 × 5
 - $\frac{\times 5}{0.30}$
- h. 33 × 0.01 3 3
 - $\begin{array}{r}
 3 \ 3 \\
 \times \ 0 \ . \ 0 \ 1 \\
 \hline
 3 \ 3 \\
 0 \ 0 \ 0
 \end{array}$

0.33

- i. 0.22×2
 - 0.22
 - $\frac{\times 0.22}{0.44}$

3. Multiply:

- **Ans.** a. 7.08×15
 - $7.08 \\
 \times 15 \\
 \hline
 3540 \\
 7080$
- b. 9 × 3.45 3 . 4 5
 - $\begin{array}{r} 3.43 \\ \times 9 \\ \hline 31.05 \end{array}$
- c. 6×0.641
 - $\begin{array}{r}
 0.641 \\
 \times 6 \\
 \hline
 3.846
 \end{array}$
- d. 33.7 × 5 3 3 . 7
 - × 5 168.5

- 106.20
- e. 62.01 × 7
 - 62.01
- $\frac{\times 7}{434.07}$
- f. 48×0.08
 - $0.08 \times 48 = 0.64$
 - $\frac{0320}{3.84}$
- $g. \quad 731 \times 0.004$
 - $\begin{array}{c}
 731 \\
 0.004 \\
 \hline
 2.924
 \end{array}$
- 1 . 1 5 × 17
 - $\begin{array}{r}
 \times 17 \\
 \hline
 805 \\
 1150 \\
 \hline
 19.55
 \end{array}$

h. 1.15×17

- i. 12.24 × 3
 - $\begin{array}{r}
 12.24 \\
 \times 3 \\
 \hline
 36.72
 \end{array}$
- j. 11 × 6.45
 - 6.45 $\times 11$ $\overline{645}$
 - $\begin{array}{r}
 645 \\
 6450 \\
 \hline
 70.95
 \end{array}$
- k. 11.11 × 9
 - $\begin{array}{c}
 11.11 \\
 \times 9 \\
 \hline
 99.99
 \end{array}$
- 1. 8 × 8.76
 - 8.76 × 8
 - $\frac{\times 8}{70.08}$

4. Solve these word problems :

- **Ans.** a. : Thickness of a science book = 4.5 cm
 - :. Thickness of 5 such science book = (4.5×5) cm = 22.5 cm

Thus, the thickness of 5 such book is 22.5 cm

- b. : Money saved by Suraj in 1 week = ₹ 8.75
 - ∴ Money he will save in 10 weeks = ₹ 8.75 × 10= ₹ 87.50

Thus, he will save ₹ 87.50 in 10 weeks.

- c. : The cost of a ticket = $\mathbf{\xi}$ 25.50
 - ∴ The cost of 15 tickets = ₹ 25.50 × 15 = ₹ 382.50

Thus, they pay ₹ 382.50 for entering the park.

Exercise-6.10

1. Put the decimal point in the correct place in the given product.

Ans. a. 1.01 \times 0.2 = 202

$$\begin{array}{ccc}
0 & 1 & \times & 0.2 & = 202 \\
 & & \uparrow & \\
2 & place & one palce
\end{array}$$

Total decimal places = 3

So we put the decimal point after three place from the right.

So,
$$1.01 \times 0.2 = 0.202$$

Ans.

b.
$$1.6 \times 0.5 = 80$$

one place one place

Total decimal places = 1 + 1 = 2

So put the decimal point after 2 places from the right.

So,
$$1.6 \times 0.5 = 0.80$$

c.
$$0.3 \times 1.1 = 33$$

one place one place

Total decimal places = 2

We put the decimal point after two places from the right.

So,
$$0.3 \times 1.1 = 0.33$$

d.
$$2.4 \times 0.9 = 216$$

one place one place

Total decimal places = 2

We put the decimal point after the two place from the right.

So,
$$2.4 \times 0.9 = 2.16$$

e.
$$7.3 \times 0.03 = 219$$

one place 2 places

Total decimal places = 3

So we put the decimal point after the three place from the right.

So,
$$7.3 \times 0.03 = 0.219$$

f.
$$3.4 \times 1.3 = 442$$

one place one place

Total decimal places = 2

So, we put the decimal point after the 2 places from the right.

So,
$$3.4 \times 1.3 = 4.42$$

Ans.

2. Find the product.

Ans. a.
$$0.1 \times 1.1$$

$$\begin{array}{c} 1 \cdot 1 \\ \times 0 \cdot 1 \\ \hline 0 \cdot 1 & 1 \end{array}$$
2 decimal places

b.
$$0.2 \times 1.2$$

$$\begin{array}{c}
1 \cdot 2 \\
\times \cdot 2 \\
\hline
0 \cdot 24
\end{array}$$
2 decimal places

c.
$$0.4 \times 0.3$$

$$\begin{array}{c} 0.4 \times 0.3 \\ \times 0.3 \\ \hline 0.12 \end{array}$$
 2 decimal places

d.
$$0.07 \times 0.8$$

$$\begin{array}{c}
0.07 \times 0.8 \\
\times .8 \\
\hline
0.056
\end{array}$$
 3 decimal places

e.
$$1.3 \times 0.05$$

$$\begin{array}{c}
0.05 \\
\times 1.3 \\
\hline
0.15
\end{array}$$
3 decimal places
$$\begin{array}{c}
0.050 \\
\hline
0.050 \\
\hline
0.065
\end{array}$$

f.
$$0.9 \times 0.5$$

$$\begin{array}{c}
0.9 \\
\times 0.5 \\
\hline
0.45
\end{array}$$
2 decimal places

3. Multiply the following.

Ans. a.
$$5.2 \times 2.1$$

$$\begin{array}{c}
5 \cdot 2 \\
\times 2 \cdot 1 \\
\hline
5 \cdot 2
\end{array}$$
2 decimal places
$$\begin{array}{c}
1040 \\
\hline
10.92
\end{array}$$

b.
$$6.9 \times 0.18$$

$$\begin{array}{c}
6.9 \\
\times .18 \\
\hline
552 \\
690 \\
\hline
1.242
\end{array}$$
3 decimal places

c.
$$4.9 \times 3.6$$
 $\times 3.6$
 $\times 3.6$
 $\times 3.6$
 $\times 3.6$
2 decimal places
 $\times 3.6$
 $\times 3.6$
 $\times 3.6$

d.
$$9.4 \times 0.13$$

$$\begin{array}{c} 9.4 \\ \times .13 \\ \hline 1.222 \end{array}$$
 3 decimal places

f.
$$8.2 \times 1.03$$

$$\begin{array}{c}
1.03 \\
\times 8.2 \\
\hline
206 \\
8240 \\
\hline
8.446
\end{array}$$
3 decimal places

g.
$$1.05 \times 1.9$$

 1.05×1.9
 1.05×1.9

h.
$$16.1 \times 3.5$$

 16.1×3.5
 $\times 3.5$
 805
 4830
 56.35
 2 decimal places

Exercise 6.11

1. Write the product.

Ans. a.
$$1.63 \times 10 = 16.3$$

b.
$$7.638 \times 100 = 76.38$$

c.
$$5.942 \times 1000 = 5942$$

d.
$$317.5 \times 10 = 3175$$

e.
$$54.75 \times 100 = 5475$$

f.
$$2.94 \times 1000 = 2940$$

g.
$$0.045 \times 10 = 0.45$$

h.
$$0.08 \times 100 = 8$$

i.
$$1.4 \times 1000 = 1400$$

2. Fill int the balnks:

Ans.
$$12.1 \times 10 = 121$$

b.
$$0.09 \times 100 = 9$$

c.
$$1.75 \times 1000 = 1750$$