

EXERCISE 4E

PAGE: 67

**1. Round off:**

- (i) 0.07, 0.112, 3.59, 9.489 to the nearest tenths.  
(ii) 0.627, 100.479, 0.065 and 0.024 to the nearest hundredths.  
(iii) 4.83, 0.86, 451.943 and 9.08 to the nearest whole number.

**Solution:**

(i) We know that

$$0.07 = 0.1$$

$$0.112 = 0.1$$

$$3.59 = 3.6$$

$$9.489 = 9.5$$

(ii)  $0.627 = 0.63$

$$100.479 = 100.48$$

$$0.065 = 0.07$$

$$0.024 = 0.02$$

(iii)  $4.83 = 5$

$$0.86 = 1$$

$$451.943 = 452$$

$$9.08 = 9$$

**2. Simplify, and write your answers correct to the nearest hundredths:**

(i)  $18.35 \times 1.2$

(ii)  $62.89 \times 0.02$

**Solution:**

(i)  $18.35 \times 1.2 = 22.02$

$$\begin{array}{r} 18.35 \\ \times 1.2 \\ \hline 36.7 \\ 1835x \\ \hline 22.02 \end{array}$$

(ii)  $62.89 \times 0.02 = 1.2578 = 1.26$

$$\begin{array}{r} 62.89 \\ \times 0.02 \\ \hline 1.2578 \end{array}$$

**3. Write the number of significant figures (digits) in:**

(i) 35.06

(ii) 0.35

(iii) 7.0068

(iv) 19.0

(v) 0.0062

(vi)  $4.2 \times 0.6$

(vii)  $0.08 \times 25$

**(viii)  $3.6 \div 0.12$**

**Solution:**

- (i) The number of significant figures in 35.06 is 4.
- (ii) The number of significant figures in 0.35 is 2.
- (iii) The number of significant figures in 7.0068 is 5.
- (iv) The number of significant figures in 19.0 is 3.
- (v) The number of significant figures in 0.0062 is 2.
- (vi) The number of significant figures in  $4.2 \times 0.6 = 2.52$  is 3.
- (vii) The number of significant figures in  $0.08 \times 25 = 2.00 = 2$  is 1.
- (viii) The number of significant figures in  $3.6 \div 0.12$  or  $360 \div 12 = 30$  is 2.

**4. Write:**

- (i) 35.869, 0.008426, 4.952 and 382.7 correct to three significant figures.**
- (ii) 60.974, 2.8753, 0.001789 and 400.04 correct to four significant figures.**
- (iii) 14.29462, 19.2, 46356.82 and 69 correct to five significant figures.**

**Solution:**

(i) Here by correcting to three significant figures.

$$35.869 = 35.9$$

$$0.008426 = 0.00843$$

$$4.952 = 4.95$$

$$382.7 = 383$$

(ii) Here by correcting to four significant figures

$$60.974 = 60.97$$

$$2.8753 = 2.875$$

$$0.001789 = 0.001789$$

$$400.04 = 400.0$$

(iii) Here by correcting to five significant figures

$$14.29462 = 14.295$$

$$19.2 = 19.200$$

$$46356.82 = 46357$$

$$69 = 69.000$$

**EXERCISE 4F**

PAGE: 67

**1. The weight of an object is 3.06 kg. Find the total weight of 48 similar objects.**

**Solution:**

It is given that

Weight of an object = 3.06 kg

So the weight of 48 objects =  $3.06 \times 48 = 146.88$  kg

$$\begin{array}{r}
 3.06 \\
 \times 48 \\
 \hline
 2448 \\
 1224x \\
 \hline
 14688
 \end{array}$$

**2. Find the cost of 17.5 m cloth at the rate of ₹ 112.50 per metre.**

**Solution:**

It is given that

Cost of cloth per metre = ₹ 112.50

So the cost of 17.5 m cloth = ₹  $112.50 \times 17.5$

On further calculation

= ₹ 1968.750

= ₹ 1968.75

$$\begin{array}{r}
 112.5 \\
 \times 17.5 \\
 \hline
 56250 \\
 78750x \\
 \hline
 11250xx \\
 \hline
 1968750
 \end{array}$$



**3. One kilogramme of oil costs ₹ 73.40. Find the cost of 9.75 kilogramme of the oil.**

**Solution:**

It is given that

Cost of 1 kg oil = ₹ 73.40

So the cost of 9.75 kg oil = ₹  $73.40 \times 9.75$

On further calculation

= ₹ 715.6500

= ₹ 715.65

$$\begin{array}{r}
 73.4 \\
 \times 9.75 \\
 \hline
 36700 \\
 51380x \\
 \hline
 66060xx \\
 \hline
 7156500
 \end{array}$$

**4. Total weight of 8 identical objects is 51.2 kg. Find the weight of each object.**

**Solution:**

It is given that

Weight of 8 identical objects = 51.2 kg

So the weight of 1 object =  $51.2 \div 8 = 6.4$  kg

**5. 18.5 m of cloth costs ₹ 666. Find the cost of 3.8 m cloth.**

**Solution:**

It is given that

Cost of 18.5 m cloth = ₹ 666

So the cost of 1m cloth = ₹  $666 \div 18.5$  and cost of 3.8 m cloth

We can write it as

=  $(666 \div 18.5) \times 3.8$

Multiplying by 10

=  $(6660 \div 185) \times 3.8$

=  $36 \times 3.8$

So we get

= ₹ 136.80

|     |  |   |
|-----|--|---|
| 185 | $\begin{array}{r} 36 \\ \hline 6660 \\ 555 \\ \hline 1110 \\ 1110 \\ \hline 0 \end{array}$ | $\begin{array}{r} 3.8 \\ \hline \times 36 \\ \hline 228 \\ 114x \\ \hline 1368 \end{array}$ |
|-----|--|---|

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**6. Find the value of:**

(i) 0.5 of ₹ 7.60 + 1.62 of ₹ 30

(ii) 2.3 of 7.3 kg + 0.9 of 0.48 kg

(iii) 6.25 of 8.4 – 4.7 of 3.24

(iv) 0.98 of 235 – 0.09 of 3.2

**Solution:**

(i) 0.5 of ₹ 7.60 + 1.62 of ₹ 30

It can be written as

= ₹ 3.80 + ₹ 48.60

So we get

= ₹ 52.40

|   |  |
|---|--|
| $\begin{array}{r} 7.6 \\ \hline \times 0.5 \\ \hline 3.8 \end{array}$ | $\begin{array}{r} 1.62 \\ \hline \times 30 \\ \hline 48.6 \end{array}$ |
|---|--|

(ii) 2.3 of 7.3 kg + 0.9 of 0.48 kg

It can be written as

= 16.79 kg + 0.432 kg

So we get  
= 17.222 kg

|   |   |  |
|---|---|--|
| $\begin{array}{r} 7.3 \\ \times 2.3 \\ \hline 219 \\ 146x \\ \hline 1679 \end{array}$ | $\begin{array}{r} 0.48 \\ \times 0.9 \\ \hline 0.432 \end{array}$ | $\begin{array}{r} 16.79 \\ + 0.432 \\ \hline 17.222 \end{array}$ |
|---|---|--|

(iii) 6.25 of 8.4 – 4.7 of 3.24

It can be written as  
= 52.500 – 15.228  
So we get  
= 37.272

|   |   |
|---|---|
| $\begin{array}{r} 6.25 \\ \times 8.4 \\ \hline 2500 \\ 5000x \\ \hline 52500 \end{array}$ | $\begin{array}{r} 3.24 \\ \times 4.7 \\ \hline 2268 \\ 1296x \\ \hline 15228 \end{array}$ |
|---|---|

(iv) 0.98 of 235 – 0.09 of 3.2

It can be written as  
= 230.30 – 0.288  
So we get  
= 230.012

|   |   |   |
|---|---|---|
| $\begin{array}{r} 230.3 \\ - 0.288 \\ \hline 230.012 \end{array}$ | $\begin{array}{r} 3.2 \\ \times 0.09 \\ \hline 0.288 \end{array}$ | $\begin{array}{r} 235 \\ \times 0.98 \\ \hline 1880 \\ 2115x \\ \hline 23030 \end{array}$ |
|---|---|---|

**7. Evaluate:**

(i) 5.6 – 1.5 of 3.4

(ii) 4.8 ÷ 0.04 of 5

(iii) 0.72 of 80 ÷ 0.2

(iv) 0.72 ÷ 80 of 0.2

(v) 6.45 ÷ (3.9 – 1.75)

(vi) 0.12 of (0.104 – 0.02) + 0.36 × 0.5

**Solution:**

(i) 5.6 – 1.5 of 3.4

It can be written as

= 5.6 – 5.1

So we get

= 0.5

$$\begin{array}{r}
 3.4 \\
 \times 1.5 \\
 \hline
 170 \\
 34x \\
 \hline
 5.1
 \end{array}$$

(ii)  $4.8 \div 0.04$  of 5

It can be written as

$$= 4.8 \div 0.20$$

Multiplying by 10

$$= 48 \div 2$$

$$= 24$$

(iii)  $0.72$  of  $80 \div 0.2$

It can be written as

$$= 57.60 \div 0.2$$

Multiplying by 10

$$= 576 \div 2$$

$$= 288$$

(iv)  $0.72 \div 80$  of  $0.2$

It can be written as

$$= 0.72 \div 16.0$$

Multiplying by 100

$$= 72 \div 1600$$

$$= 0.045$$

$$\begin{array}{r}
 0.045 \\
 1600 \overline{) 72} \\
 \underline{-6400} \\
 8000 \\
 \underline{-8000} \\
 0
 \end{array}$$

(v)  $6.45 \div (3.9 - 1.75)$

It can be written as

$$= 6.45 \div 2.15$$

Multiplying by 100

$$= 645 \div 215$$

$$= 3$$

$$\begin{array}{r}
 3 \\
 215 \overline{) 645} \\
 \underline{-645} \\
 0
 \end{array}$$

(vi)  $0.12$  of  $(0.104 - 0.02) + 0.36 \times 0.5$

It can be written as



$$= 0.12 \text{ of } 0.084 + 0.36 \times 0.5$$

So we get

$$= 0.01008 + 0.180$$

$$= 0.19008$$

$$\begin{array}{r} 0.104 \\ -0.02 \\ \hline 0.084 \end{array}$$

$$\begin{array}{r} 0.084 \\ \times 0.12 \\ \hline 0.01008 \end{array}$$

$$\begin{array}{r} 0.01008 \\ + 0.18 \\ \hline 0.19008 \end{array}$$



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