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P.6 MATHEMATICS

LESSON WEEK SEVEN

TOPIC: FRACTIONS

SUB TOPIC: ADDITION AND SUBTRACTION OF DECIMALS

Examples

1. Add: 3.4 + 24.63

$$\begin{array}{r} 24.63 \\ +\ 3.40 \\ \hline \mathbf{28.03} \end{array}$$

2. Alex had 7.05 meters and Kato had 17.13 meters of string. Find the total length of their string. Find the total length of their strings.

$$\begin{array}{r} 17.13 \text{ metres} \\ +\ 7.05 \text{ metres} \\ \hline \mathbf{24.18 \text{ metres}} \end{array}$$

3. Subtract 9.5 – 3.6

$$\begin{array}{r} 8.9 \\ -3.6 \\ \hline \mathbf{5.3} \end{array}$$

4. Subtract 0.9 from 100

$$\begin{array}{r} 100.0 \\ -\ 0.9 \\ \hline 99.1 \end{array} \quad \textbf{re-group}$$

ACTIVITY:

Work out the following

1. 6.4 + 9.
2. 166.66 + 0.4
3. 5.55 + 555
4. 676.6 – 67.7
5. 100 – 0.101
6. 30 – 0.3

LESSON TWO
SUBTOPIC : MULTIPLICATION OF DECIMALS
CONTENT :

1. Multiply: 0.3 x 6

$^{1}0 . 3$ 6 x 3 = 18
x 6 6 x 0 = 0 + 1 = 1
1 . 8

2. Multiply: 4.5 x 2.6

$\frac{45}{10} \times \frac{26}{10}$

$\frac{45 \times 26}{10 \times 10}$

$\frac{117\cancel{0}}{10\cancel{0}}$

= 11.7

3. Find the product of 2.34 and 1.2

2.3 4
x 1.2
$4^{1}6$ 8
+2 3 4
2.8 0 8

NOTE: After multiplying and adding, we consider the decimal places altogether.

ACTIVITY:

Work out the following

1	3.3 x 2	4	9.8 x 2.2
2	32.5 x 0.3	5	9.4 x 0.12
3	6.6 x 1.2	6	4.5 x 0.32

LESSON THREE
SUBTOPIC : DIVISION OF DECIMALS

1. Work out: $4.5 \div 2.5$

$$\frac{45}{10} \div \frac{25}{10}$$

$$\frac{45}{10} \times \frac{\cancel{10}^{\,2}}{\cancel{25}_{\,5}}$$

$$\frac{^{9}\cancel{45} \times 2}{10 \times \cancel{5}_{1}}$$

$$\frac{18}{10}$$

$= 1.8$

2. Divide 0.5 by 10

$$0.5 \div 10$$

$$\frac{5}{10} \div \frac{10}{1}$$

$$\frac{5}{10} \times \frac{1}{10}$$

$$\frac{5 \times 1}{10 \times 10}$$

$$\frac{5}{100}$$

$=0.05$

ACTIVITY
Work out the following

a) $12 \div 0.2$

b) $0.8 \div 2$

c) $8.5 \div 0.5$

d) $100 \div 0.1$

e) $14.4 \div 1.2$

f) $200 \div 0.02$

LESSON FOUR :
TOPIC : FRACTIONS
SUBTOPIC : MULTIPLICATION AND DIVISION OF DECIMALS
CONTENT :

1) Work out $\dfrac{1.2 \times 2.4}{0.3}$

$$\left[\frac{12}{10} \times \frac{24}{10}\right] \div \frac{3}{10}$$

$$\frac{12}{10} \times \frac{\cancel{24}^{8}}{\cancel{10}} \times \frac{\cancel{10}}{\cancel{3}_{1}}$$

$$\frac{12 \times 8 \times 1}{10 \times 1 \times 1} \qquad \frac{96}{10} \quad \textbf{= 9.6}$$

2) Simplify: $\frac{1.8 \times 7.2}{0.2 \times 0.03}$

$$\left[\frac{18}{10} \times \frac{72}{10}\right] \div \left[\frac{2}{10} \times \frac{3}{100}\right]$$

$$\frac{\cancel{18}^{9\ \cancel{3}} \times 72 \times 10 \times \cancel{100}}{\cancel{10} \quad \cancel{10} \quad \cancel{2}_{1} \quad \cancel{3}} = \frac{3 \times 72 \times 10}{1 \times 1 \times 1 \times 1}$$

= 2160

ACTIVITY

Work out the following:

1 $\frac{1.6 \times 7.2}{0.06}$

2. $\frac{12.3 \times 2.4}{3.6}$

3) $\frac{36 \times 0.4}{0.9}$

4) $\frac{0.045 \times 0.9}{0.9 \times 0.03}$

5) $\frac{6.4 \times 2.8}{0.04}$

6) $\frac{1.8 \times 3.5}{0.7 \times 0.3}$

LESSON FIVE

SUB TOPIC: ORDERING DECIMALS

CONTENT: **(i) Ascending order**

(ii) Descending order

Examples:

1. Arrange 0.36, 0.054, 0.07 and 0.8 in descending order.

Express decimals as fractions

$0.36 = \frac{36}{100}$ $0.054 = \frac{54}{1000}$ $0.07 = \frac{7}{100}$

$0.8 = \frac{8}{10}$

Find the LCD which is 1000.

$\frac{36}{100} \times \frac{1000}{100}$ $\frac{54}{1000} \times \frac{1000}{1000}$ $\frac{7}{100} \times \frac{1000}{100}$ $\frac{8}{10} \times \frac{1000}{10}$

36 x 10 = 360(2^{nd}) 54 x 1 = 54 (4^{th}) 7 x 10 = 70 (3^{rd}) 8 x 100 = 800 (1^{st})

∴ **Order = 0.8, 0.36. 0.07, 0.054**

ACTIVITY:

<u>Arrange the decimals as instructed in the brackets.</u>

1. 0.22, 0.2, 1.2 (from biggest)
2. 0.1, 0.3, 0.33 (from smallest)
3. 2.2, 0.22, 0.02 (from biggest)
4. 1.05, 0.15, 1.5. (From smallest.)
5. 0.08, 0.8, 0.34. (from biggest