22-06-2020 Monday.

Ex # 2D

BASIC LEVEL

Q3:- Evaluate each of the following.

(a) $\frac{15}{8} \times \frac{4}{3}$

Sol:-

$= \frac{\cancel{15}^{5}}{8} \times \frac{4}{\cancel{3}_{1}}$

$= \frac{5}{\cancel{8}_{2}} \times \frac{\cancel{4}^{1}}{1}$

$= \frac{5}{\cancel{2}} \times \frac{\cancel{4}^{2}}{1}$

$= \frac{5}{1} \times \frac{2}{1}$

$= \frac{10}{1} = 10$ Ans

(b) $2\frac{3}{5} \times \frac{15}{26}$

Sol:-

$= \frac{13}{15} \times \frac{\cancel{15}^{3}}{26}$

$= \frac{\cancel{13}^{1}}{1} \times \frac{3}{\cancel{26}^{2}}$

$= \frac{1}{1} \times \frac{3}{2}$

$= \frac{1 \times 3}{1 \times 2}$

$= \frac{3}{2}$ Ans.

$$2\overline{)\,3\,}\;1$$
$$\underline{-2}$$
$$1$$

or $1\frac{1}{2}$ Ans

(c) $\frac{15}{4} \div \frac{5}{2}$

Sol:- $= \frac{15^{3}}{4} \times \frac{2}{5_{1}}$

$= \frac{3}{4_{2}} \times \frac{2^{1}}{1}$

$= \frac{3}{2} \times \frac{1}{1}$

$= \frac{3 \times 1}{2 \times 1}$

$= \frac{3}{2}$

$= 1\frac{1}{2}$ Ans.

(d) $1\frac{7}{9} \div \frac{4}{3}$

Sol:-

$= \frac{16}{9} \div \frac{4}{3}$

$= \frac{16}{9_3} \times \frac{3^1}{4}$

$= \frac{^4\cancel{16}}{3} \times \frac{1}{\cancel{4}^1}$

$= \frac{4}{3} \times \frac{1}{1}$

$= \frac{4 \times 1}{3 \times 1}$

$= \frac{4}{3} = 1\frac{1}{3}$ Ans

Q5: Find the value of each of the following.

(a) $\frac{64}{15} \times \left(-\frac{3}{8}\right)$.

Sol:-

$= -\frac{\cancel{64}^{\,16}}{\cancel{15}_{\,5}} \times \frac{\cancel{3}^{\,1}}{\cancel{8}_{\,1}}$

$= -\frac{16}{5} \times \frac{1}{1}$

$= -\frac{16}{5}$

$5\overline{)16}\ (3$, -15, 1

$= -3\frac{1}{5}$ Ans.

(b) $\frac{4}{15} \div \left(\frac{-10}{3}\right)$

Sol:-

$= \frac{-4}{15_5} \times \frac{3^1}{10}$

$= \frac{-4^2}{5} \times \frac{1}{10_5}$

$= \frac{-2}{5} \times \frac{1}{5}$

$= \frac{-2 \times 1}{5 \times 5}$

$= \frac{-2}{25}$ Ans.

(c) $-6\frac{1}{8} \times \frac{3}{14}$

Sol:-

$= \frac{-49}{8} \times \frac{3}{14_2}$ (7)

$= \frac{-7}{8} \times \frac{3}{2}$

$= \frac{-7 \times 3}{8 \times 2}$

$16 \overline{)21}$ (1)

-16

5

$= \frac{-21}{16}$

$= -1\frac{5}{16}$ Ans.

(d) $-2\frac{1}{2} \times 4\frac{2}{5}$

Sol:

$$= -\frac{\cancel{5}^{1}}{2} \times \frac{22}{\cancel{5}_{1}}$$

$$= -\frac{1}{\cancel{2}_{1}} \times \frac{\cancel{22}^{11}}{1}$$

$$= \frac{-1 \times 11}{1 \times 1}$$

$$= \frac{-11}{1}$$

$$= -11 \quad \text{Ans.}$$

(e) $-1\frac{1}{4} \div \frac{3}{8}$

Sol:-

$$= \frac{-5}{\cancel{4}_{1}} \times \frac{\cancel{8}^{2}}{3}$$

$$= \frac{-5}{1} \times \frac{2}{3}$$

$$= \frac{-5 \times 2}{1 \times 3}$$

$$= \frac{-10}{3}$$

$$= -3\frac{1}{3}$$ Ans.

3
3) 10
-9
1

(f) $-\frac{8}{9} \div \left(-1\frac{2}{3}\right)$

Sol:-

$= -\frac{8}{9} \div \left(-\frac{5}{3}\right)$

$= +\frac{8}{3\cancel{9}} \times \frac{\cancel{3}^{1}}{5}$

$= \frac{8}{3} \times \frac{1}{5}$

$= \frac{8}{15}$ Ans.

Q7:- Evaluate each of the following.

(a) 14.72×1.2

Sol:-

$$\begin{array}{r} {\scriptstyle (1)} \\ 14.72 \\ \times\ 1.2 \\ \hline {\scriptstyle (1)} \\ 2944 \\ +\ 1472\ x \\ \hline 17.664 \end{array}$$

So $14.72 \times 1.2 = 17.664$ Ans.

(b) 130.4×0.15

Sol:-

① ②

$$\begin{array}{r} 130.4 \\ \times\ 0.15 \\ \hline 6520 \\ +\ 1304\ x \\ \hline 19.560 \end{array}$$

$130.4 \times 0.15 = 19.560$ Ans.

(C) 0.27×0.08

② ⑤

$$\begin{array}{r} 0.27 \\ \times 0.08 \\ \hline 216 \\ 000x \\ +0000xx \\ \hline 0.0216 \end{array}$$

$0.27 \times 0.08 = 0.0216$ Ans.

(d) 0.25×1.96

Sol:-

④ ② ① ③

$$\begin{array}{r} 0.25 \\ \times\ 1.96 \\ \hline 150 \\ 225x \\ +\ 025xx \\ \hline 0.4900 \end{array}$$

Hence

$0.25 \times 1.96 = 0.4900$ Ans.

Ex # 2D.

Q7:- Evaluate each of the following.

(a) $0.81 \div 0.3$

$= \frac{0.81}{0.3}$ → numerator, → denominator.

Multiply both numerator and denominator by 10.

$= \frac{0.81}{0.3} \times \frac{10}{10}$

$= \frac{8.1}{3}$

```
    2.7
3 ) 8.1
   -6
    21
    21
    --
     x
```

$= 2.7$ Ans

(b) $1.32 \div 0.12$

Sol:-

$$= \frac{1.32}{0.12}$$

Multiply both numerator and denominator by 100 we get;

$$= \frac{1.32}{0.12} \times \frac{100}{100}$$

$$= \frac{132}{12}$$

$$12 \overline{)\ 132\ (\ 11}$$
$$-12$$
$$12$$
$$12$$
$$x$$

$$= 11$$

Ans

(c) $3.426 \div 0.06$

Sol:-

$$= \frac{3.426}{0.06}$$

Multiply both numerator and denominator by 100, we get;

$$= \frac{3.426}{0.06} \times \frac{100}{100}$$

$$= \frac{342.6}{6}$$

$$\begin{array}{r|l} & 57.1 \\ \hline 6 & 342.6 \\ & -30 \\ \hline & 42 \\ & 42 \\ \hline & 6 \\ & 6 \\ \hline & x \end{array}$$

$$= 57.1 \text{ Ans.}$$

(4)

(d) $4.35 \div 1.5$

Sol:-

$$= \frac{4.35}{1.5}$$

Multiply both numerator and denominator by 10, we get;

$$= \frac{4.35}{1.5} \times \frac{10}{10}$$

$$= \frac{43.5}{15}$$

$$15 \overline{)\,43.5}\,(2.9$$

-30

13.5

13.5

x

$= 2.9$ Ans.

9. Evaluate each of the following.

(a) $4.3 - (-3.9)$

$= 4.3 + 3.9$

$= 8.2$ Ans.

(1)
4.3
$+ 3.9$
8.2

(b) $2.8 + (-1.5)$

$= 2.8 - 1.5$

$= 1.3$ Ans.

(C) $-5.9 + 2.7$

$= -3.2$ Ans.

-5.9
$+ 2.7$
-3.2

(d) $-6.7 - 5.4$

$= 12.1$ Ans.

(1)
-6.7
-5.4
-12.1