H.W.
29/6/21

EXERCISE-5(B)

1. $\begin{array}{r} 3\,A \\ +\,2\,5 \\ \hline B\,2 \end{array}$

$A = 7$ as $7+5=12$. Here, 2 in unit place and 1 is carry over. Now, $3+2+1=6$. So, $B=6$. Hence, $A=7$ and $B=6$.

$\begin{array}{r} 3\,7 \\ +\,2\,5 \\ \hline 6\,2 \end{array}$

2. $\begin{array}{r} 9\,8 \\ +\,4\,A \\ \hline C\,B\,3 \end{array}$

$8+5=13$. 3 in unit place 1 is carry over. $9+4+1=14$. So, $A=5$, $B=4$, $C=1$

$\begin{array}{r} 9\,8 \\ +\,4\,5 \\ \hline 1\,4\,3 \end{array}$

3. $\begin{array}{r} A\,1 \\ +\,1\,B \\ \hline B\,0 \end{array}$

$B=9$ as $1+9=10$. Here, 0 in unit place and 1 is carry over. Now, $9-(1+1)=9-1-1=7$. So, $A=7$, $B=9$

$\begin{array}{r} 7\,1 \\ 1\,9 \\ \hline 9\,0 \end{array}$

4. $\begin{array}{r} 2AB \\ +AB1 \\ \hline B18 \end{array}$

$B = 7$ as $7+1=8$. We want 8 at unit place. Now, $7+A=11$

$\Rightarrow A = 11-7$

$\Rightarrow A = 4$

Hence, $A=4$ and $B=7$

$\begin{array}{r} 247 \\ +471 \\ \hline 718 \end{array}$

5. $\begin{array}{r} 12A \\ +6AB \\ \hline A09 \end{array}$

$A+B=9$ and $2+A=10$

$\therefore A = 10-2 = 8$ and $8+B=9$

$\therefore B = 9-8 = 1$

Hence $A=8$ and $B=1$

$\begin{array}{r} 128 \\ +681 \\ \hline 809 \end{array}$

6. $\begin{array}{r} 1A \\ \times A \\ \hline 9A \end{array}$

As we need A at unit place and 9 at ten's place, $A=6$ as $6\times6=36$.

$\begin{array}{r} 16 \\ \times 6 \\ \hline 96 \end{array}$

7. $\begin{array}{r} AB \\ \times\ 6 \\ \hline BBB \end{array}$

As we need B at unit place and B at ten's place,

$\therefore B = 4$ as $6 \times 4 = 24$

Now we want to find A, $6 \times A + 2 = 4$ (at unit's place)

$\therefore A = 7$

$\begin{array}{r} 74 \\ \times\ 6 \\ \hline 444 \end{array}$

8. $\begin{array}{r} AB \\ \times\ 3 \\ \hline CAB \end{array}$

As we need B at unit place and A at ten's place,

$\therefore B = 0$ as $3 \times 0 = 0$

Now we want to find A, $3 \times A = A$ (at unit's place)

$\therefore A = 5$, as $3 \times 5 = 15$

$\therefore C = 1$

$\begin{array}{r} 050 \\ \times\ 3 \\ \hline 150 \end{array}$

9. $\begin{array}{r} AB \\ \times\ 5 \\ \hline CAB \end{array}$

As we need B at unit's place and A ten's place, $B = 0$ as $5 \times 0 = 0$.

Now we want to find A, $5 \times A = A$ (at unit's place)

$A = 5$ as $5 \times 5 = 25$

$C = 2$

$$\begin{array}{r} 50 \\ \times\ 5 \\ \hline 250 \end{array}$$

10. $\begin{array}{r} 8A5 \\ +94A \\ \hline 1A33 \end{array}$

$5 + A = 13$ and $A + 4 = 13$

$\Rightarrow A = 13 - 5$

$\Rightarrow A = 8$

Hence $A = 8$

$$\begin{array}{r} 885 \\ +948 \\ \hline 1833 \end{array}$$

11. $\begin{array}{r} 6ABS \\ +D58C \\ \hline 9351 \end{array}$

$C + 5 = 11$

$\Rightarrow C = 11 - 5$

$\Rightarrow C = 6$

and $8 + B + 1 = 15$

$\Rightarrow 9 + B = 15$

$\Rightarrow B = 15 - 9 = 6$

and $A + 5 + 1 = 13$

$\Rightarrow A + 6 = 13$

$\Rightarrow A = 13 - 6 = 7$

and $6 + D + 1 = 9$

$\Rightarrow 7 + D = 9$

$\Rightarrow D = 9 - 7 = 2$

Hence $A = 7$, $B = 6$, $C = 6$ and $D = 2$

$$\begin{array}{r} 6765 \\ +2586 \\ \hline 9351 \end{array}$$