

1) Multiply the given numbers in **vertical way**:

a) Multiply 21 by 23

Step 2:

$$\begin{array}{r} 21 \\ \times 23 \\ \hline \square \square \\ \hline \\ \hline \end{array}$$

Step 3:

$$\begin{array}{r} 21 \\ \times 23 \\ \hline \square \square \\ \square \square \square \\ \hline \square \square \square \\ \hline \end{array}$$

b) Multiply 32 by 24

Step 2:

$$\begin{array}{r} 32 \\ \times 24 \\ \hline \square \square \square \\ \hline \\ \hline \end{array}$$

Step 3:

$$\begin{array}{r} 32 \\ \times 24 \\ \hline \square \square \square \\ \square \square \square \square \\ \hline \square \square \square \square \\ \hline \end{array}$$

c) Multiply 34 by 25

Step 2:

$$\begin{array}{r}
 + \\
 \begin{array}{r}
 34 \\
 \times 25 \\
 \hline
 \end{array}
 \end{array}$$

Below the multiplication problem are three empty boxes for the answer, with the first two boxes colored red and the last one blue.

Step 3:

$$\begin{array}{r}
 + \\
 \begin{array}{r}
 34 \\
 \times 25 \\
 \hline
 \end{array}
 \end{array}$$

Below the multiplication problem are three empty boxes for the answer, with the first two boxes colored red and the last one blue.

d) Multiply 45 by 23

Step 2:

$$\begin{array}{r}
 + \\
 \begin{array}{r}
 45 \\
 \times 23 \\
 \hline
 \end{array}
 \end{array}$$

Below the multiplication problem are three empty boxes for the answer, with the first two boxes colored red and the last one blue.

Step 3:

$$\begin{array}{r}
 + \\
 \begin{array}{r}
 45 \\
 \times 23 \\
 \hline
 \end{array}
 \end{array}$$

Below the multiplication problem are three empty boxes for the answer, with the first two boxes colored red and the last one blue.

e) Multiply 48 by 23

Step 2:

$$\begin{array}{r} 48 \\ \times 23 \\ \hline \end{array}$$

Step 3:

$$\begin{array}{r} 48 \\ \times 23 \\ \hline 96 \\ 960 \\ \hline 1104 \end{array}$$

f) Multiply 59 by 23

Step 2:

$$\begin{array}{r} 59 \\ \times 23 \\ \hline \end{array}$$

Step 3:

$$\begin{array}{r} 59 \\ \times 23 \\ \hline 118 \\ 1770 \\ \hline 1357 \end{array}$$