

Partial Product Multiplication

Solve using partial products.

a.
$$\begin{array}{r} 24 \\ \times 13 \\ \hline \end{array}$$

| | | | | | |
|---|--|---|----|---|----|
| | | = | 3 | × | 4 |
| | | = | 3 | × | 20 |
| | | = | 10 | × | 4 |
| + | | = | 10 | × | 20 |
| | | | | | |

b.
$$\begin{array}{r} 18 \\ \times 26 \\ \hline \end{array}$$

| | | | | | |
|---|--|---|--|---|--|
| | | = | | × | |
| | | = | | × | |
| | | = | | × | |
| + | | = | | × | |
| | | | | | |

c.
$$\begin{array}{r} 73 \\ \times 28 \\ \hline \end{array}$$

| | | | | | |
|---|--|---|--|---|--|
| | | = | | × | |
| | | = | | × | |
| | | = | | × | |
| + | | = | | × | |
| | | | | | |

d.
$$\begin{array}{r} 14 \\ \times 19 \\ \hline \end{array}$$

| | | | | | |
|---|--|---|--|---|--|
| | | = | | × | |
| | | = | | × | |
| | | = | | × | |
| + | | = | | × | |
| | | | | | |

e.
$$\begin{array}{r} 55 \\ \times 34 \\ \hline \end{array}$$

| | | | | | |
|---|--|---|--|---|--|
| | | = | | × | |
| | | = | | × | |
| | | = | | × | |
| + | | = | | × | |
| | | | | | |

f.
$$\begin{array}{r} 38 \\ \times 49 \\ \hline \end{array}$$

| | | | | | |
|---|--|---|--|---|--|
| | | = | | × | |
| | | = | | × | |
| | | = | | × | |
| + | | = | | × | |
| | | | | | |

g.
$$\begin{array}{r} 29 \\ \times 25 \\ \hline \end{array}$$

| | | | | | |
|---|--|---|--|---|--|
| | | = | | × | |
| | | = | | × | |
| | | = | | × | |
| + | | = | | × | |
| | | | | | |

h.
$$\begin{array}{r} 31 \\ \times 42 \\ \hline \end{array}$$

| | | | | | |
|---|--|---|--|---|--|
| | | = | | × | |
| | | = | | × | |
| | | = | | × | |
| + | | = | | × | |
| | | | | | |

i.
$$\begin{array}{r} 67 \\ \times 17 \\ \hline \end{array}$$

| | | | | | |
|---|--|---|--|---|--|
| | | = | | × | |
| | | = | | × | |
| | | = | | × | |
| + | | = | | × | |
| | | | | | |

Partial Product Multiplication

Solve using partial products.

a.

$$\begin{array}{r} 24 \\ \times 13 \\ \hline \end{array}$$

| | | | | | |
|---|-----|---|----|---|----|
| | 12 | = | 3 | × | 4 |
| | 60 | = | 3 | × | 20 |
| | 40 | = | 10 | × | 4 |
| + | 200 | = | 10 | × | 20 |
| | 312 | | | | |

b.

$$\begin{array}{r} 18 \\ \times 26 \\ \hline \end{array}$$

| | | | | | |
|---|-----|---|----|---|----|
| | 48 | = | 6 | × | 8 |
| | 60 | = | 6 | × | 10 |
| | 160 | = | 20 | × | 8 |
| + | 200 | = | 20 | × | 10 |
| | 468 | | | | |

c.

$$\begin{array}{r} 73 \\ \times 28 \\ \hline \end{array}$$

| | | | | | |
|---|-------|---|----|---|----|
| | 24 | = | 8 | × | 3 |
| | 560 | = | 8 | × | 70 |
| | 60 | = | 20 | × | 3 |
| + | 1,400 | = | 20 | × | 70 |
| | 2,044 | | | | |

d.

$$\begin{array}{r} 14 \\ \times 19 \\ \hline \end{array}$$

| | | | | | |
|---|-----|---|----|---|----|
| | 36 | = | 9 | × | 4 |
| | 90 | = | 9 | × | 10 |
| | 40 | = | 10 | × | 4 |
| + | 100 | = | 10 | × | 10 |
| | 266 | | | | |

e.

$$\begin{array}{r} 55 \\ \times 34 \\ \hline \end{array}$$

| | | | | | |
|---|-------|---|----|---|----|
| | 20 | = | 4 | × | 5 |
| | 200 | = | 4 | × | 50 |
| | 150 | = | 30 | × | 5 |
| + | 1,500 | = | 30 | × | 50 |
| | 1,870 | | | | |

f.

$$\begin{array}{r} 38 \\ \times 49 \\ \hline \end{array}$$

| | | | | | |
|---|-------|---|----|---|----|
| | 72 | = | 9 | × | 8 |
| | 270 | = | 9 | × | 30 |
| | 320 | = | 40 | × | 8 |
| + | 1,200 | = | 40 | × | 30 |
| | 1,862 | | | | |

g.

$$\begin{array}{r} 29 \\ \times 25 \\ \hline \end{array}$$

| | | | | | |
|---|-----|---|----|---|----|
| | 45 | = | 5 | × | 9 |
| | 100 | = | 5 | × | 20 |
| | 180 | = | 20 | × | 9 |
| + | 400 | = | 20 | × | 20 |
| | 725 | | | | |

h.

$$\begin{array}{r} 31 \\ \times 42 \\ \hline \end{array}$$

| | | | | | |
|---|-------|---|----|---|----|
| | 2 | = | 2 | × | 1 |
| | 60 | = | 2 | × | 30 |
| | 40 | = | 40 | × | 1 |
| + | 1,200 | = | 40 | × | 30 |
| | 1,302 | | | | |

i.

$$\begin{array}{r} 67 \\ \times 17 \\ \hline \end{array}$$

| | | | | | |
|---|-------|---|----|---|----|
| | 49 | = | 7 | × | 7 |
| | 420 | = | 7 | × | 60 |
| | 70 | = | 10 | × | 7 |
| + | 600 | = | 10 | × | 60 |
| | 1,139 | | | | |