

Clara uses a chart to multiply 3×42 :

Step 1:

She multiplies the ones digit of 42 by 3 ($3 \times 2 = 6$).

| | | |
|---|---|---|
| | 4 | 2 |
| x | | 3 |
| | | 6 |

Step 2:

She multiplies the tens digit of 42 by 3 (3×4 tens = 12 tens).

She regroups 10 tens as 1 hundred.

| | | |
|---|---|---|
| | 4 | 2 |
| x | | 3 |
| | 1 | 2 |
| | | 6 |

hundreds tens

1. Use Clara's method to find the products.

a)

| | | |
|---|---|---|
| | 5 | 1 |
| x | | 3 |
| | | |

b)

| | | |
|---|---|---|
| | 8 | 2 |
| x | | 3 |
| | | |

c)

| | | |
|---|---|---|
| | 6 | 2 |
| x | | 2 |
| | | |

d)

| | | |
|---|---|---|
| | 5 | 1 |
| x | | 4 |
| | | |

e)

| | | |
|---|---|---|
| | 5 | 1 |
| x | | 5 |
| | | |

f)

| | | |
|---|---|---|
| | 6 | 1 |
| x | | 6 |
| | | |

g)

| | | |
|---|---|---|
| | 8 | 3 |
| x | | 3 |
| | | |

h)

| | | |
|---|---|---|
| | 7 | 4 |
| x | | 2 |
| | | |

i)

| | | |
|---|---|---|
| | 9 | 4 |
| x | | 2 |
| | | |

j)

| | | |
|---|---|---|
| | 4 | 2 |
| x | | 4 |
| | | |

k)

| | | |
|---|---|---|
| | 8 | 3 |
| x | | 2 |
| | | |

l)

| | | |
|---|---|---|
| | 4 | 1 |
| x | | 5 |
| | | |

m)

| | | |
|---|---|---|
| | 3 | 1 |
| x | | 7 |
| | | |

n)

| | | |
|---|---|---|
| | 3 | 2 |
| x | | 4 |
| | | |

o)

| | | |
|---|---|---|
| | 6 | 3 |
| x | | 2 |
| | | |

p)

| | | |
|---|---|---|
| | 6 | 3 |
| x | | 3 |
| | | |

q)

| | | |
|---|---|---|
| | 2 | 2 |
| x | | 4 |
| | | |

r)

| | | |
|---|---|---|
| | 3 | 1 |
| x | | 9 |
| | | |

s)

| | | |
|---|---|---|
| | 4 | 1 |
| x | | 5 |
| | | |

t)

| | | |
|---|---|---|
| | 6 | 1 |
| x | | 9 |
| | | |

u)

| | | |
|---|---|---|
| | 8 | 1 |
| x | | 7 |
| | | |

v)

| | | |
|---|---|---|
| | 9 | 2 |
| x | | 3 |
| | | |

w)

| | | |
|---|---|---|
| | 9 | 2 |
| x | | 4 |
| | | |

x)

| | | |
|---|---|---|
| | 5 | 2 |
| x | | 3 |
| | | |

y)

| | | |
|---|---|---|
| | 5 | 2 |
| x | | 4 |
| | | |

z)

| | | |
|---|---|---|
| | 8 | 3 |
| x | | 4 |
| | | |

aa)

| | | |
|---|---|---|
| | 9 | 3 |
| x | | 2 |
| | | |

bb)

| | | |
|---|---|---|
| | 7 | 1 |
| x | | 9 |
| | | |

cc)

| | | |
|---|---|---|
| | 5 | 3 |
| x | | 3 |
| | | |

dd)

| | | |
|---|---|---|
| | 6 | 2 |
| x | | 3 |
| | | |

ee)

| | | |
|---|---|---|
| | 4 | 4 |
| x | | 2 |
| | | |

ff)

| | | |
|---|---|---|
| | 6 | 4 |
| x | | 2 |
| | | |

gg)

| | | |
|---|---|---|
| | 5 | 1 |
| x | | 5 |
| | | |

hh)

| | | |
|---|---|---|
| | 8 | 1 |
| x | | 7 |
| | | |

ii)

| | | |
|---|---|---|
| | 9 | 3 |
| x | | 3 |
| | | |



2. Find the following products.

a) 3×63

b) 6×50

c) 5×61

d) 2×94

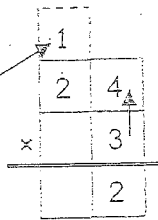
e) 4×42

Alicia uses a chart to multiply 3×24 :

Step 1:

She multiplies 4 ones by 3 ($4 \times 3 = 12$).

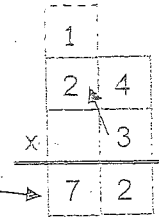
She regroups 10 ones as 1 ten.



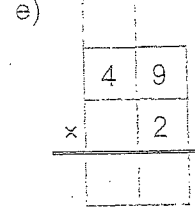
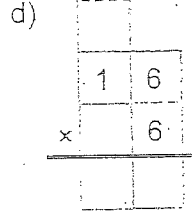
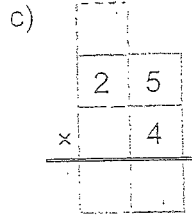
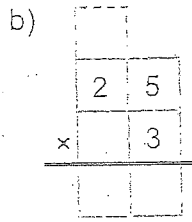
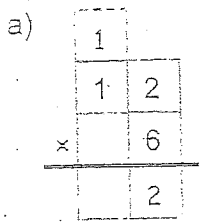
Step 2:

She multiplies 2 tens by 3 ($3 \times 2 \text{ tens} = 6 \text{ tens}$).

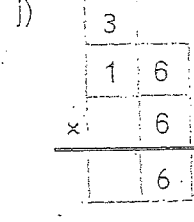
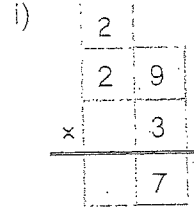
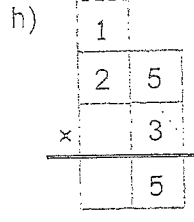
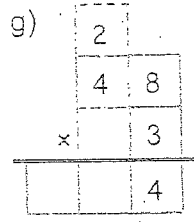
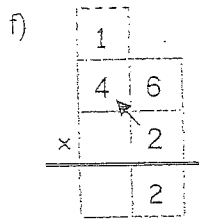
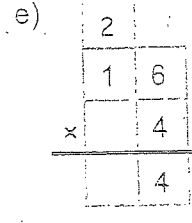
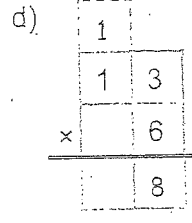
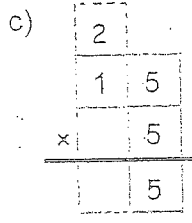
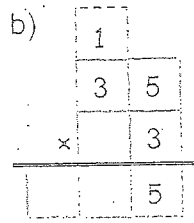
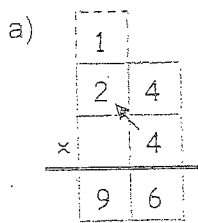
She adds 1 ten to the result ($6 + 1 = 7 \text{ tens}$).



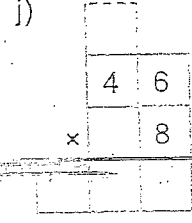
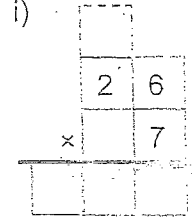
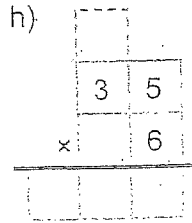
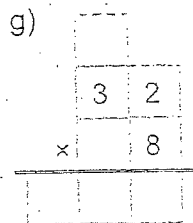
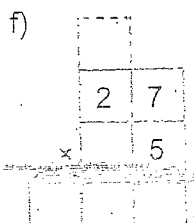
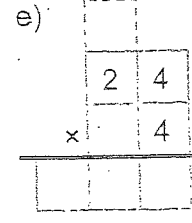
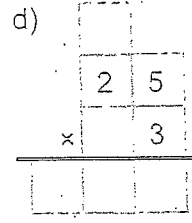
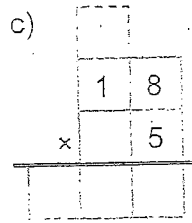
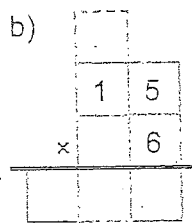
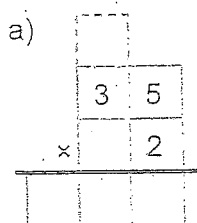
1. Using Alicia's method, complete the first step of the multiplication. The first one has been done.



2. Using Alicia's method, complete the second step of multiplication.



3. Using Alicia's method, complete the first and second steps of the multiplication.



Dillon multiplies 2×213 in three different ways.

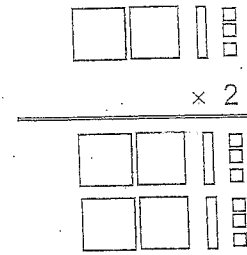
1. With a chart:

| | hundreds | tens | ones |
|----------|----------|------|------|
| | 2 | 1 | 3 |
| \times | | | 2 |
| | 4 | 2 | 6 |

2. In expanded form:

$$\begin{array}{r} 200 + 10 + 3 \\ \times 2 \\ \hline = 400 + 20 + 6 \\ = 426 \end{array}$$

3. With base ten materials:



1. Rewrite the multiplication statement in expanded notation. Then perform the multiplication.

a) 234×2

$$= \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad}$$

b) 133×3

$$= \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad}$$

2. Multiply.

a) $\begin{array}{r} 41 \\ \times 4 \\ \hline \end{array}$

b) $\begin{array}{r} 434 \\ \times 2 \\ \hline \end{array}$

c) $\begin{array}{r} 312 \\ \times 3 \\ \hline \end{array}$

d) $\begin{array}{r} 124 \\ \times 2 \\ \hline \end{array}$

e) $\begin{array}{r} 323 \\ \times 3 \\ \hline \end{array}$

3. Multiply by regrouping ones as tens.

a) $\begin{array}{r} 227 \\ \times 2 \\ \hline \end{array}$

b) $\begin{array}{r} 216 \\ \times 4 \\ \hline \end{array}$

c) $\begin{array}{r} 224 \\ \times 3 \\ \hline \end{array}$

d) $\begin{array}{r} 436 \\ \times 2 \\ \hline \end{array}$

e) $\begin{array}{r} 116 \\ \times 6 \\ \hline \end{array}$

4. Multiply by regrouping tens as hundreds. In the last question, you will also regroup ones as tens.

a) $\begin{array}{r} 364 \\ \times 2 \\ \hline \end{array}$

b) $\begin{array}{r} 151 \\ \times 6 \\ \hline \end{array}$

c) $\begin{array}{r} 242 \\ \times 4 \\ \hline \end{array}$

d) $\begin{array}{r} 171 \\ \times 5 \\ \hline \end{array}$

e) $\begin{array}{r} 256 \\ \times 3 \\ \hline \end{array}$



5. Multiply.

a) 5×134

b) 7×421

c) 6×132

d) 9×134

e) 8×124

f) 6×135

6. Draw a picture in your notebook to show the result of the multiplication.

a) $\begin{array}{r} \\ \times 2 \\ \hline \end{array}$

b) $\begin{array}{r} \\ \times 4 \\ \hline \end{array}$

c) $\begin{array}{r} \\ \times 3 \\ \hline \end{array}$