

Formal Multiplication by 2 digit numbers

1)

| | | | |
|-------|--|---|---|
| | | 2 | 3 |
| x | | 3 | 2 |
| <hr/> | | | |
| | | | 0 |
| <hr/> | | | |
| | | | |

2)

| | | | |
|-------|--|---|---|
| | | 4 | 3 |
| x | | 1 | 3 |
| <hr/> | | | |
| | | | 0 |
| <hr/> | | | |
| | | | |

3)

| | | | |
|-------|--|---|---|
| | | 5 | 3 |
| x | | 4 | 4 |
| <hr/> | | | |
| | | | 0 |
| <hr/> | | | |
| | | | |

4)

| | | | |
|-------|---|---|---|
| | 1 | 6 | 3 |
| x | | 3 | 2 |
| <hr/> | | | |
| | | | 0 |
| <hr/> | | | |
| | | | |

5)

| | | | |
|-------|---|---|---|
| | 2 | 4 | 3 |
| x | | 1 | 6 |
| <hr/> | | | |
| | | | 0 |
| <hr/> | | | |
| | | | |

6)

| | | | |
|-------|---|---|---|
| | 1 | 5 | 4 |
| x | | 5 | 6 |
| <hr/> | | | |
| | | | 0 |
| <hr/> | | | |
| | | | |

7)

| | | | |
|-------|---|---|---|
| | 2 | 9 | 4 |
| x | | 2 | 2 |
| <hr/> | | | |
| | | | |
| <hr/> | | | |
| | | | |

8)

| | | | |
|-------|---|---|---|
| | 2 | 6 | 8 |
| x | | 7 | 4 |
| <hr/> | | | |
| | | | |
| <hr/> | | | |
| | | | |

9)

| | | | |
|-------|---|---|---|
| | 3 | 5 | 3 |
| x | | 4 | 3 |
| <hr/> | | | |
| | | | |
| <hr/> | | | |
| | | | |

Formal Multiplication by 2 digit numbers

1)

| | | | | |
|-------|---|---|---|---|
| | 2 | 9 | 4 | |
| x | | 2 | 2 | |
| <hr/> | | | | |
| | | | | |
| | | | | 0 |
| <hr/> | | | | |
| | | | | |

2)

| | | | | |
|-------|---|---|---|---|
| | 2 | 6 | 8 | |
| x | | 7 | 4 | |
| <hr/> | | | | |
| | | | | |
| | | | | 0 |
| <hr/> | | | | |
| | | | | |

3)

| | | | | |
|-------|---|---|---|---|
| | 3 | 5 | 3 | |
| x | | 4 | 3 | |
| <hr/> | | | | |
| | | | | |
| | | | | 0 |
| <hr/> | | | | |
| | | | | |

4)

| | | | | | |
|-------|---|---|---|---|--|
| | 7 | 0 | 6 | 5 | |
| x | | | 5 | 8 | |
| <hr/> | | | | | |
| | | | | | |
| | | | | | |
| <hr/> | | | | | |
| | | | | | |

5)

| | | | | | |
|-------|---|---|---|---|--|
| | 8 | 1 | 6 | 3 | |
| x | | | 4 | 6 | |
| <hr/> | | | | | |
| | | | | | |
| | | | | | |
| <hr/> | | | | | |
| | | | | | |

6)

| | | | | | |
|-------|---|---|---|---|--|
| | 6 | 9 | 4 | 2 | |
| x | | | 7 | 2 | |
| <hr/> | | | | | |
| | | | | | |
| | | | | | |
| <hr/> | | | | | |
| | | | | | |

7)

| | | | | | |
|-------|---|---|---|---|--|
| | 9 | 0 | 9 | 9 | |
| x | | | 6 | 3 | |
| <hr/> | | | | | |
| | | | | | |
| | | | | | |
| <hr/> | | | | | |
| | | | | | |

Formal Multiplication by 2 digit numbers

1)

| | | | | |
|-------|---|---|---|---|
| | 6 | 9 | 4 | 2 |
| x | | | 7 | 2 |
| <hr/> | | | | |
| | | | | |
| <hr/> | | | | |
| | | | | |

2)

| | | | | |
|-------|---|---|---|---|
| | 4 | 3 | 3 | 7 |
| x | | | 8 | 8 |
| <hr/> | | | | |
| | | | | |
| <hr/> | | | | |
| | | | | |

3)

| | | | | |
|-------|---|---|---|---|
| | 5 | 9 | 7 | 1 |
| x | | | 6 | 5 |
| <hr/> | | | | |
| | | | | |
| <hr/> | | | | |
| | | | | |

4)

| | | | | |
|-------|---|---|---|---|
| | 5 | 0 | 7 | 4 |
| x | | | 3 | 9 |
| <hr/> | | | | |
| | | | | |
| <hr/> | | | | |
| | | | | |

5)

| | | | | |
|-------|---|---|---|---|
| | 6 | 7 | 9 | 9 |
| x | | | 6 | 4 |
| <hr/> | | | | |
| | | | | |
| <hr/> | | | | |
| | | | | |

6)

| | | | | |
|-------|---|---|---|---|
| | 4 | 8 | 7 | 4 |
| x | | | 3 | 9 |
| <hr/> | | | | |
| | | | | |
| <hr/> | | | | |
| | | | | |

Explain...

Why you need a **placeholder** when multiplying by a 2 digit number.