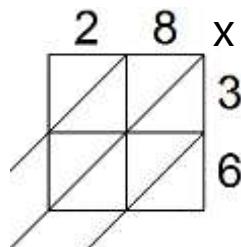


## MJN-Den Arabiske Multiplikation (Gitter-Multiplikation):

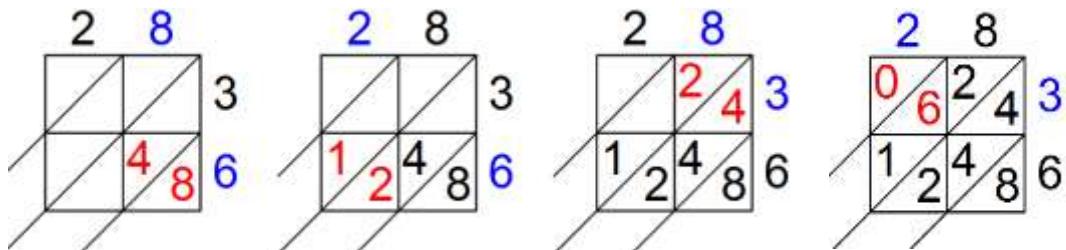
### STEP 1

For at multiplicere vha. den arabiske metode tegnes et gitter med kvadrater el. rektangler afhængigt af antal cifre. Derefter tegnes diagonale linjer i gitteret. Skriv tallene som skal multipliceres.



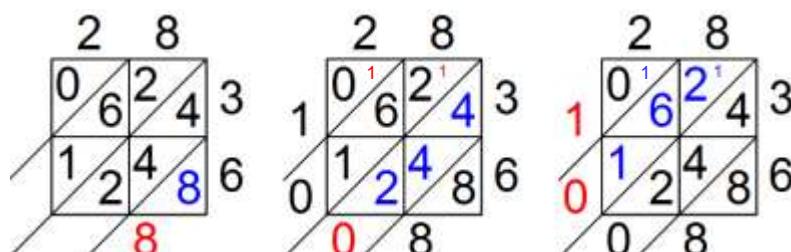
### STEP 2

Multiplicer kolonnerne med rækkerne og opdel produkterne på hver side af diagonalen.



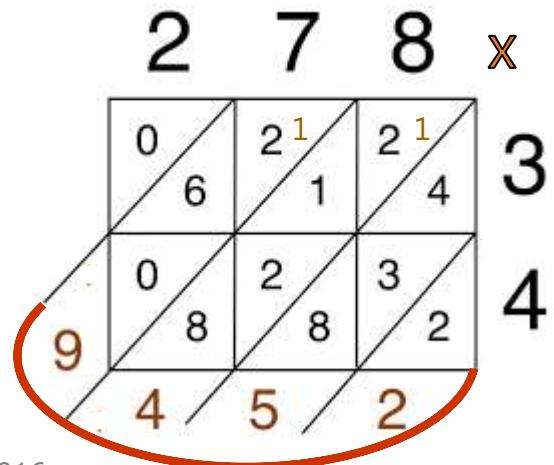
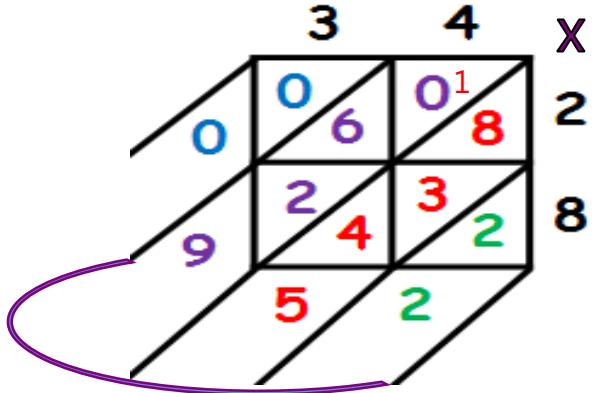
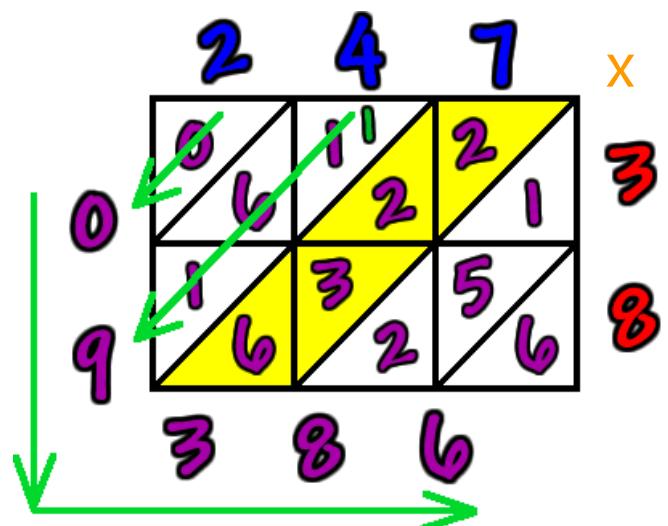
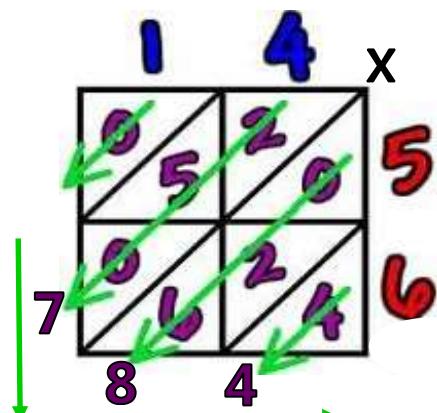
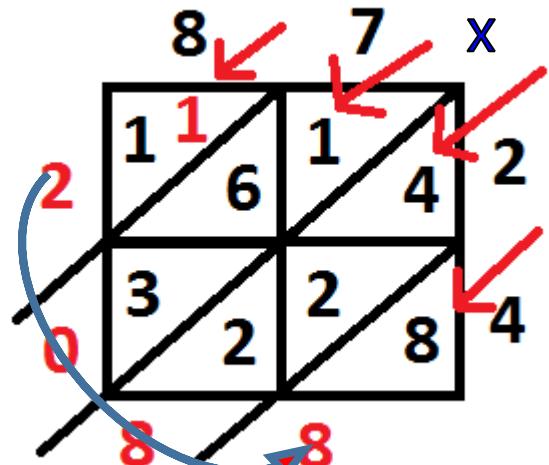
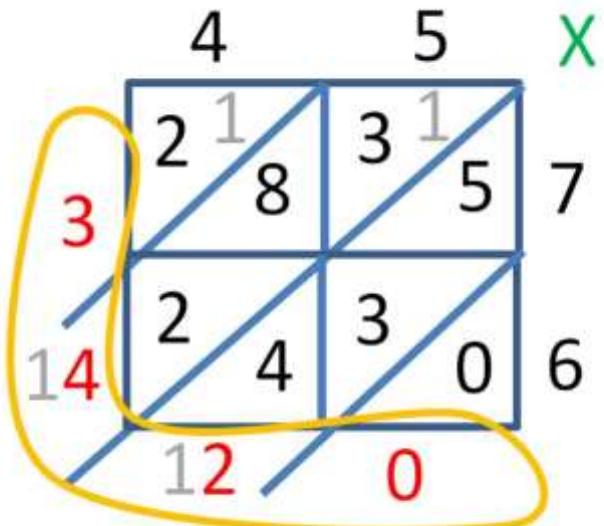
### STEP 3

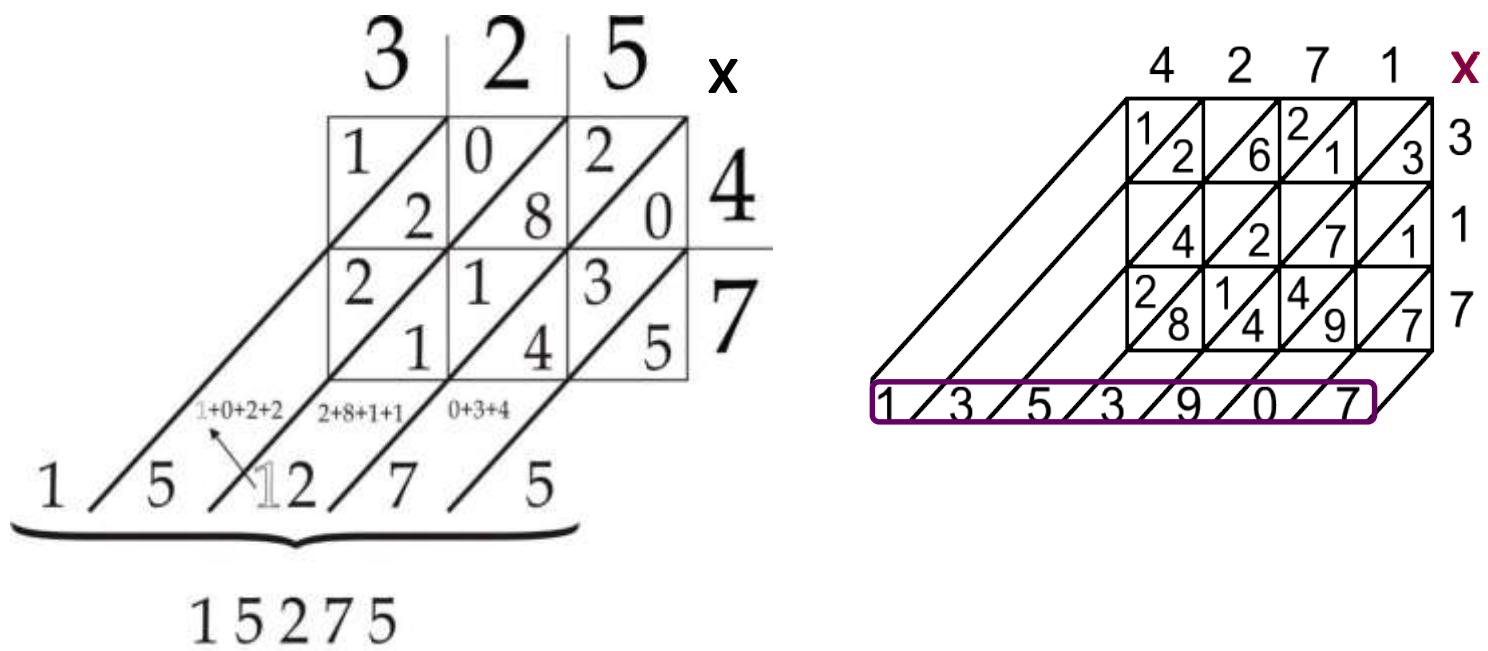
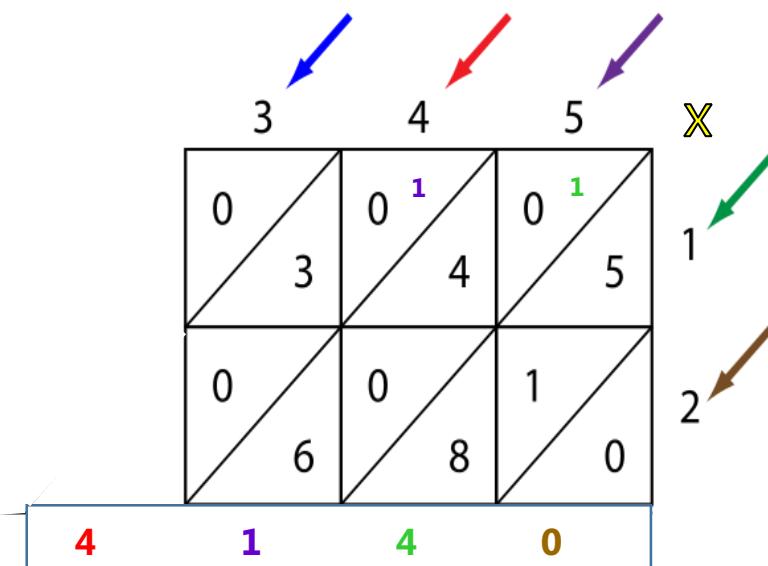
Endelig lægges tallene sammen langs diagonalerne og svaret opnås.



Svaret:  $28 \times 36 = 1008$

### Eksempler:





| 3 | 2 | 7 | X |
|---|---|---|---|
| 1 | 1 | 3 | 5 |
| 9 |   |   | 5 |
| 1 | 2 | 1 | 0 |
|   | 4 | 6 | 5 |
|   | 1 | 1 | 4 |
|   | 8 | 2 | 2 |
| 6 | 2 | 2 |   |

| X | 3 | 4 | 5 |
|---|---|---|---|
| 4 | 2 | 6 | 0 |
| 3 | 1 | 2 | 5 |
| 7 | 9 | 2 | 3 |
| 1 | 2 | 8 | 5 |
| 5 | 7 | 6 | 5 |

| 2 | 3 | 1  | 4  | X |
|---|---|----|----|---|
| 0 | 0 | 10 | 10 | 1 |
| 0 | 2 | 3  | 4  |   |
| 3 | 1 | 0  | 5  |   |
| 6 | 1 | 2  | 0  |   |
|   | 4 | 1  | 7  |   |
| 3 | 2 | 9  | 8  |   |

### Eksempel på multiplikation af romertal:

Romertal var svært at skrive og de optager meget plads, især til at foretage beregninger af fire regningsarter.

Ved beregning af  $123 \times 11$  på romertal er:

**CXXIII × XI**

$$= (C \times X + C \times I) + (X \times X + X \times I) + (X \times X + X \times I) + (I \times X + I \times I) + (I \times X + I \times I) + (I \times X + I \times I)$$

$$= (M + C) + (C + X) + (C + X) + (X + I) + (X + I) + (X + I)$$

$$= \text{MCCXCXXIXIXI}$$

$$= \text{MCCCXXXXXIII}$$

$$= \text{MCCCLIII}$$

$$= \textbf{1353}$$