

Gange metode



Treeholm

Gange metode til at gange med store tal

Gange med kasser er en kinesiske metode.

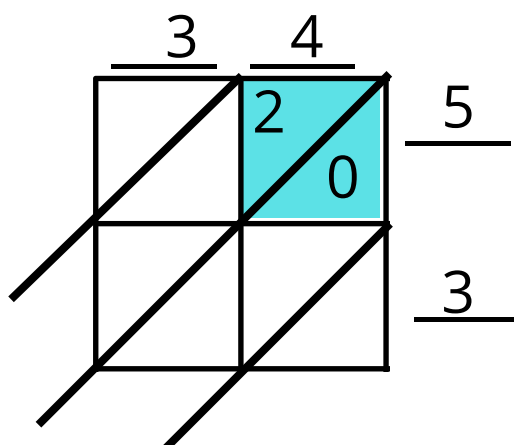
Metoden er god fordi den er visuel. Eleverne skal kun forholde sig de små tabeller og et tal da gangen.

De første sider er forklaring til hvordan metoden opstilles, og anvendes. Herefter følger opgaver, hvor talende der ganges med bliver større større. Det sværeste ved metoden er at opstille kasserne, men når de først har forstået metoden, er det nemmer for dem.



Forklaring

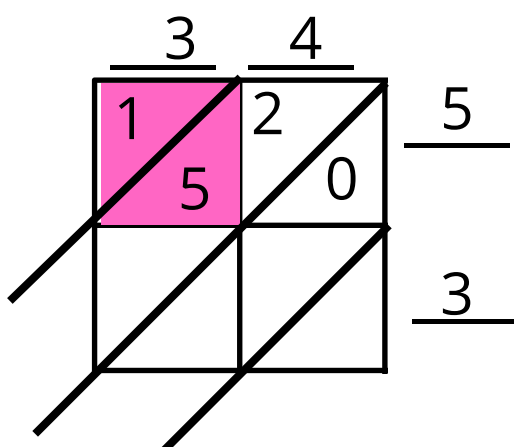
$$\underline{34} \cdot \underline{53} = \underline{\quad}$$



Vi starter med at kigge på
den lyse blå kasse
Her står 4 og 5 ud fra,
derfor siger vi
 $4 * 5 = 20$

Så skriver 2 i den øverste
del og 0 i den nederste del

$$\underline{34} \cdot \underline{53} = \underline{\quad}$$



Så kigger vi på den lyserøde
firkant

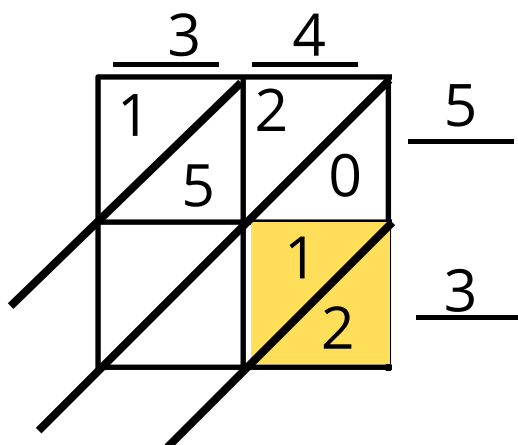
her står der 3 og 5 ud fra,
derfor siger vi:

$$3 * 5 = 15$$

Her skriver vi 1 øverste og 5
nederst

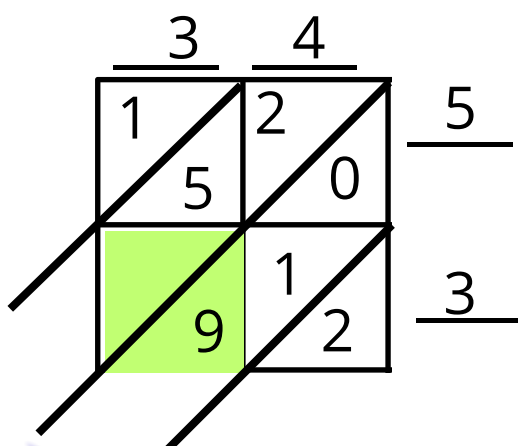


$$\underline{34} \cdot \underline{53} = \underline{\quad}$$



Så er vi kommet til den
gule firkant
her siger $4 * 3 = 12$
Vi skriver 1 øverst og 2
nederst

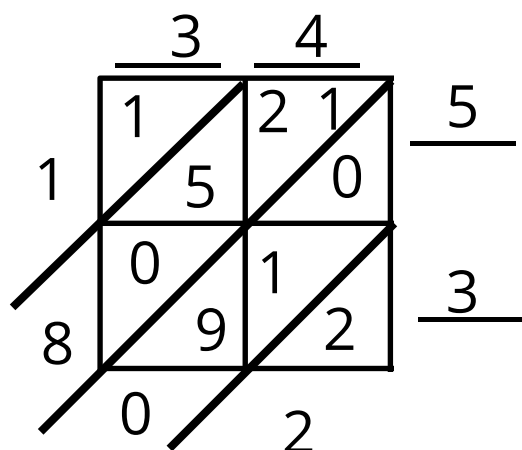
$$\underline{34} \cdot \underline{53} = \underline{\quad}$$



Til sidst den grønne
firkant:
 $3 * 3 = 9$
her skriver vi 9 nederst
og 0 i den øverste, da
der ikke er nogen 10'ere



$$\underline{34} \cdot \underline{53} = \underline{1802}$$



Nu har vi ganget alle
tallene med hinanden,
så kigger vi på de skår
linjer

I det første skår felt står der 2, derfor giver det 2

I det næste står der $0 + 1 + 9$ det giver 10 vi skriver
0 og sender 1 vider.

I det næste felt, står der $1 + 2 + 5 + 0$ og det giver 8

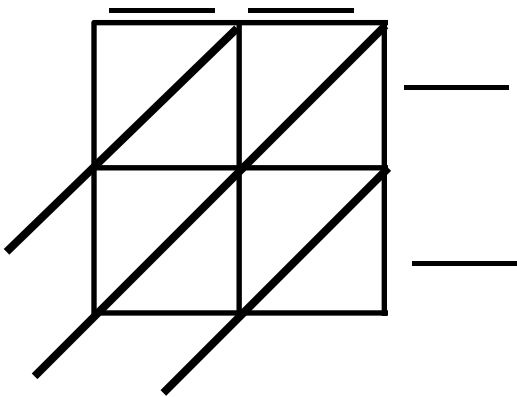
Og i det øverste felt står der 1.

dvs at det giver 1802

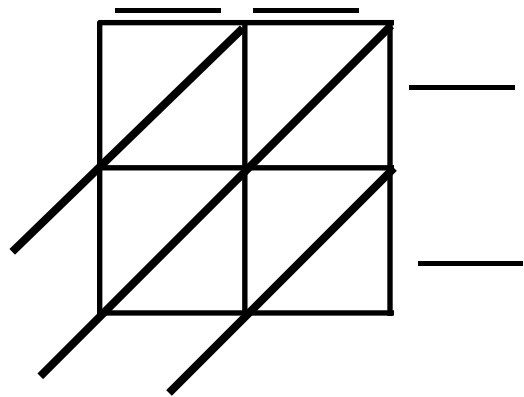


Opgave 1

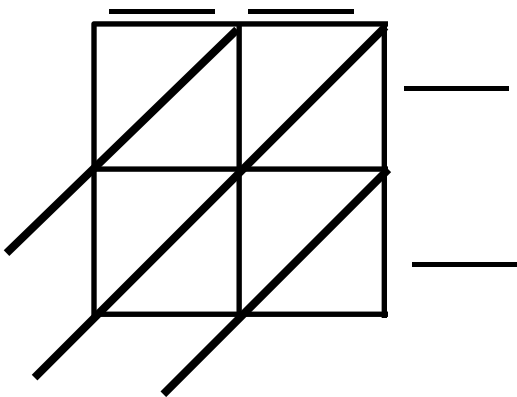
$$\underline{20} \cdot \underline{35} = \underline{\hspace{2cm}}$$



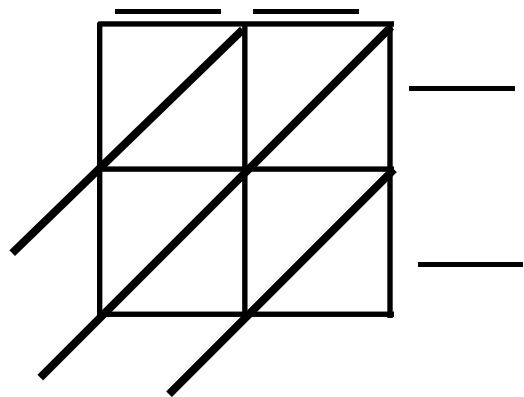
$$\underline{15} \cdot \underline{42} = \underline{\hspace{2cm}}$$



$$\underline{24} \cdot \underline{65} = \underline{\hspace{2cm}}$$

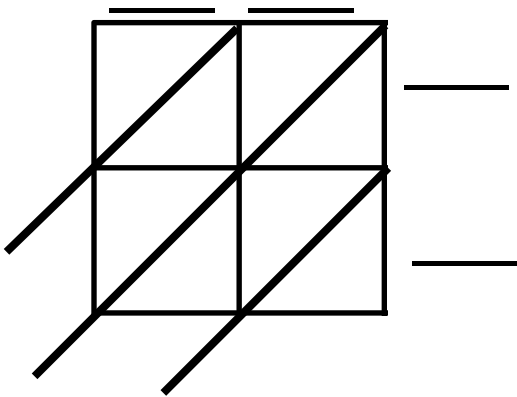


$$\underline{42} \cdot \underline{61} = \underline{\hspace{2cm}}$$

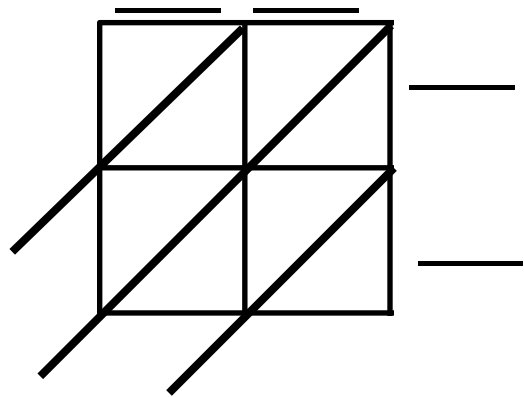


Opgave 2

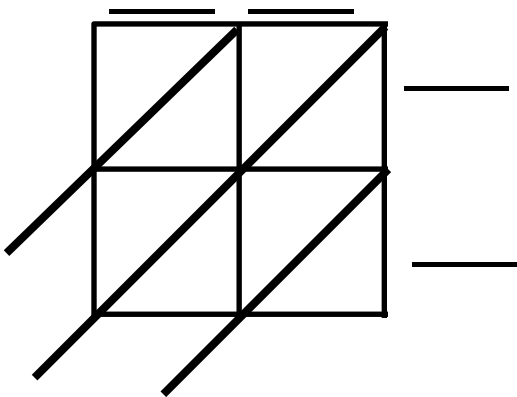
$$\underline{51} \cdot \underline{23} = \underline{\hspace{2cm}}$$



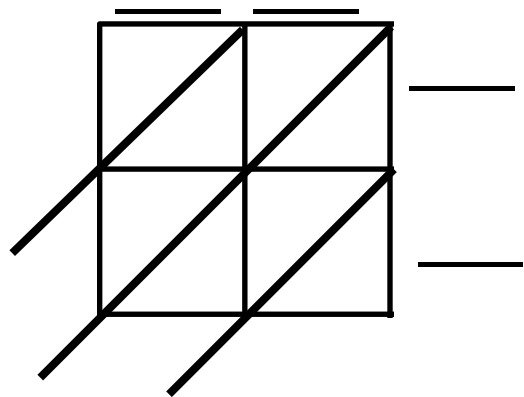
$$\underline{82} \cdot \underline{41} = \underline{\hspace{2cm}}$$



$$\underline{45} \cdot \underline{15} = \underline{\hspace{2cm}}$$



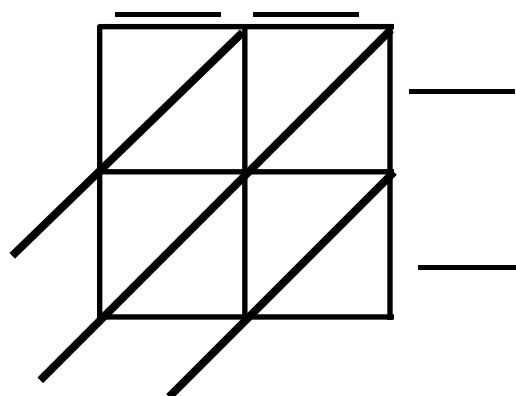
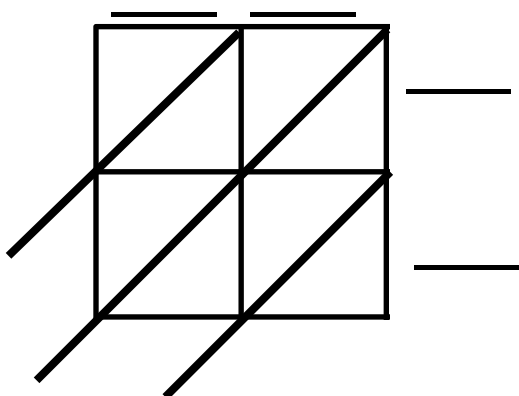
$$\underline{71} \cdot \underline{24} = \underline{\hspace{2cm}}$$



Opgave 3 - Skriv selv gangestykker

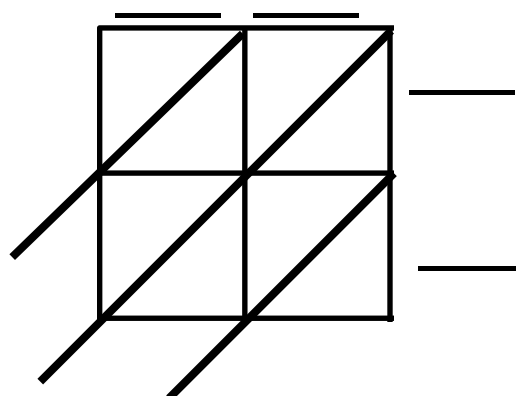
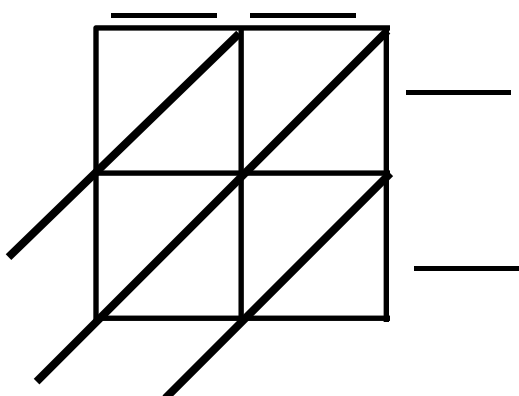
$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$



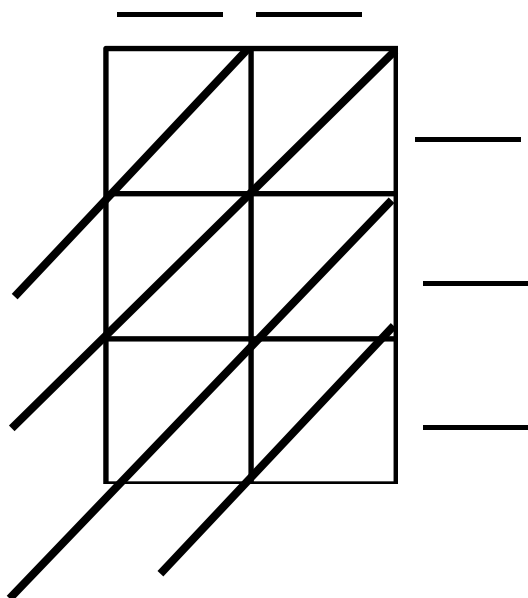
$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$

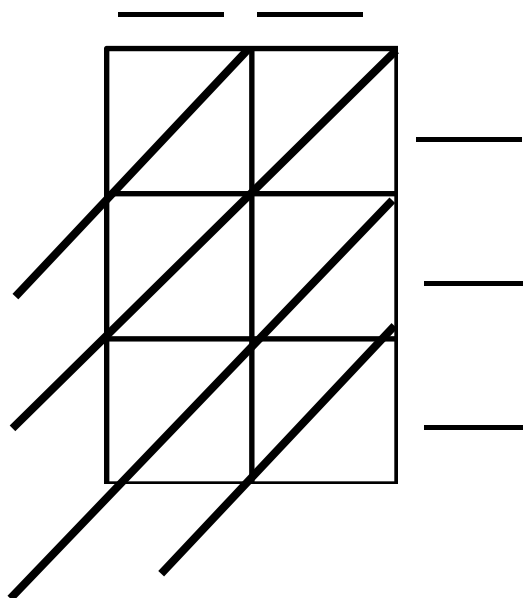


Opgave 4

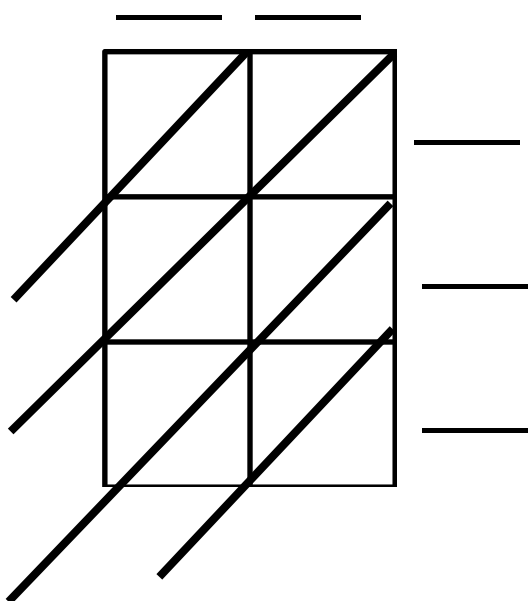
$$\underline{41} \cdot \underline{514} = \underline{\hspace{2cm}}$$



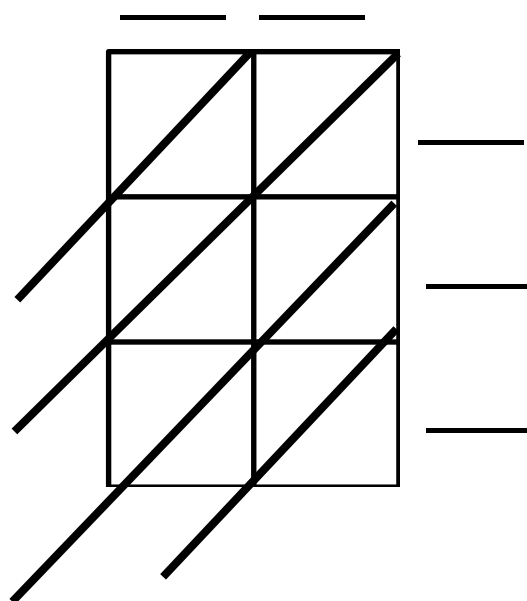
$$\underline{25} \cdot \underline{325} = \underline{\hspace{2cm}}$$



$$\underline{34} \cdot \underline{251} = \underline{\hspace{2cm}}$$

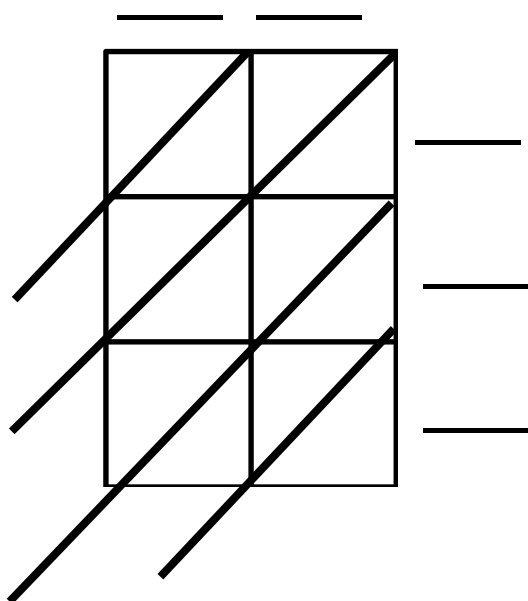


$$\underline{10} \cdot \underline{310} = \underline{\hspace{2cm}}$$

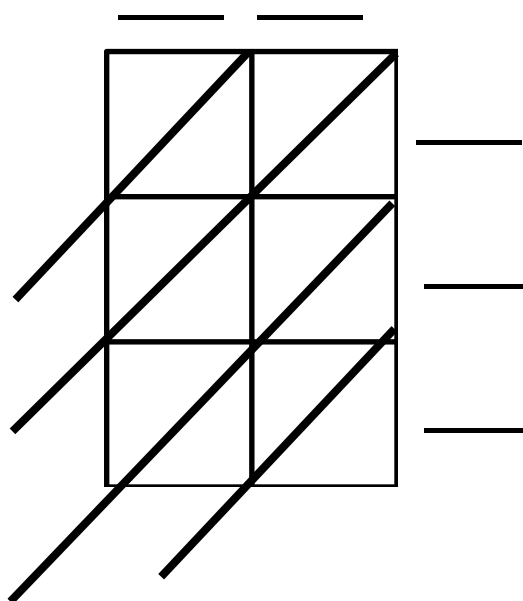


Opgave 5 - lav selv gange stykker

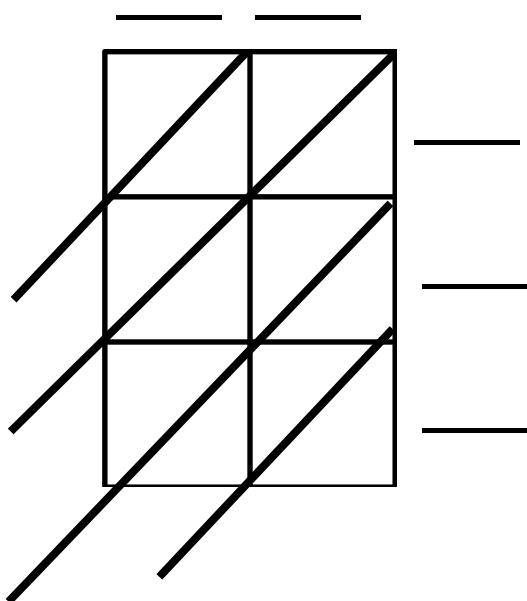
$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$



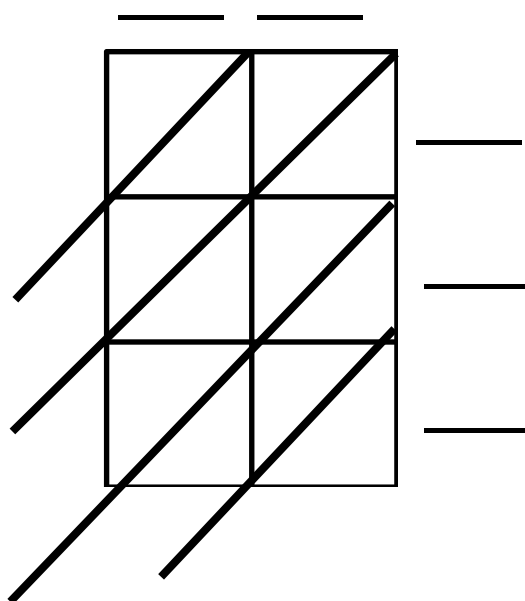
$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$



$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$



$$\underline{\quad} \cdot \underline{\quad} = \underline{\quad}$$



Lave 6

Opstil selv gange kasser

35 · 23

Lave 7

Opstil selv gange kasser

345 · 132