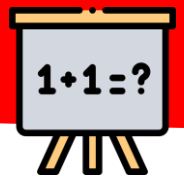
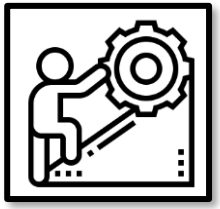
Comment multiplier en ligne ?



C30: Multiplier en ligne (1)



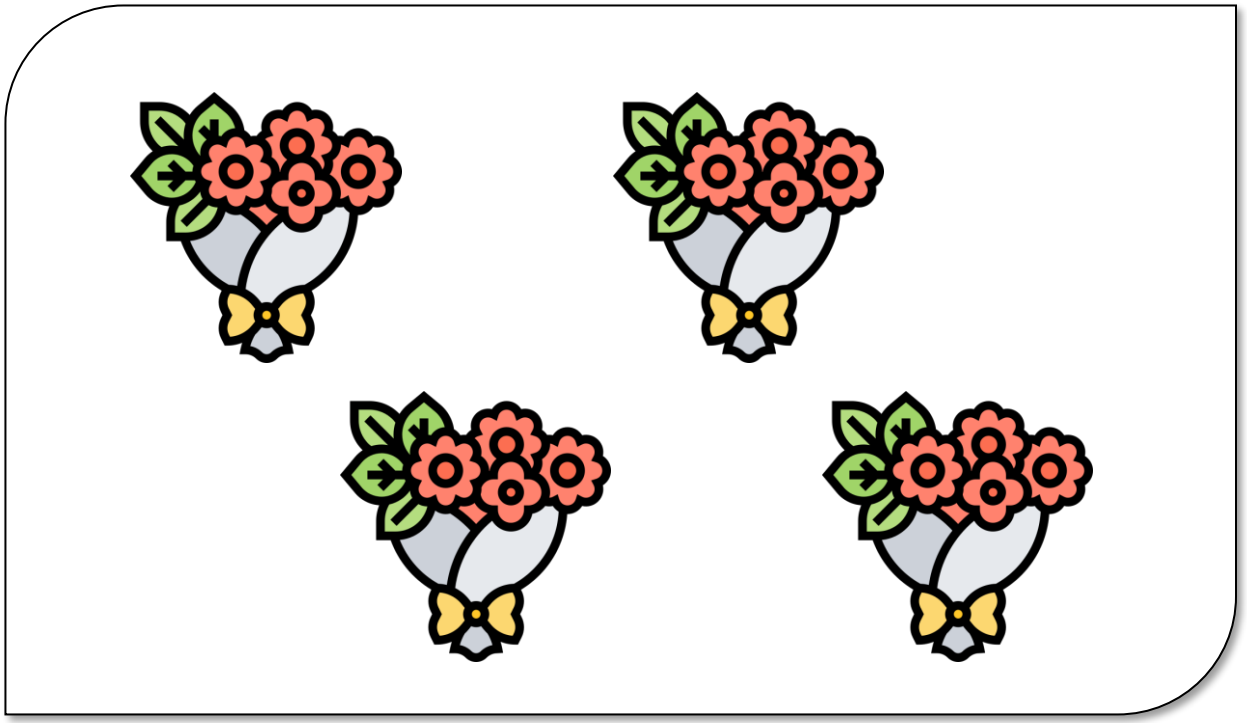
A quoi sert une multiplication ?

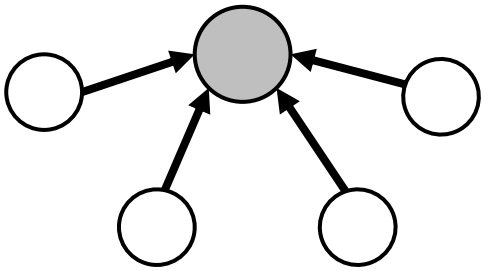
Invente une histoire de multiplication.

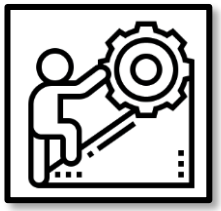
La multiplication sert à

↓

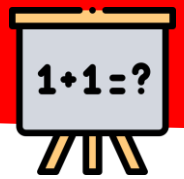
Rassembler des collections <u>identiques</u>





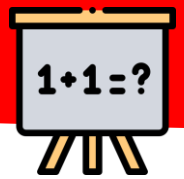


Quelles stratégies utiliser pour calculer 12 x 4 ?



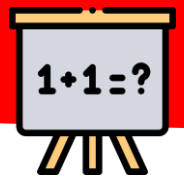
C30: Multiplier en ligne (1)

$$12 \times 4 =$$



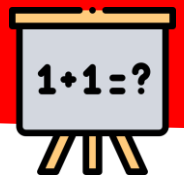
C30: Multiplier en ligne (1)

$$4 \times 12 =$$



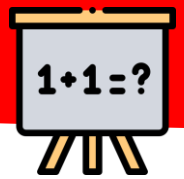
C30: Multiplier en ligne (1)

$$4 \times 12 =$$



C30: Multiplier en ligne (1)

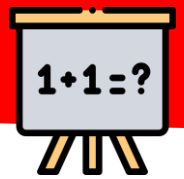
$4 \times 12 =$



C30: Multiplier en ligne (1)

$$4 \times 12 =$$

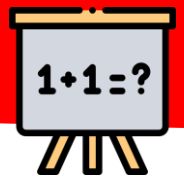
$$10 + 2$$



C30: Multiplier en ligne (1)

$$4 \times 12 =$$

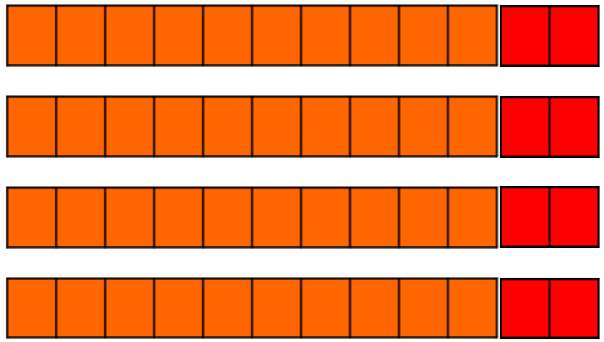
$$10 + 2$$

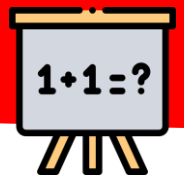


C30: Multiplier en ligne (1)

$$4 \times 12 =$$

$$10 + 2$$

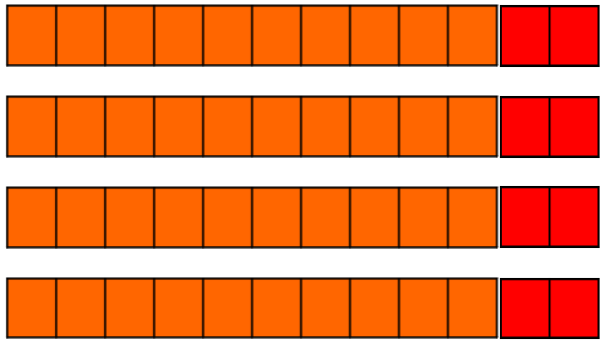


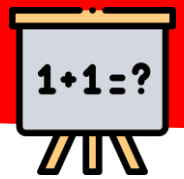


C30: Multiplier en ligne (1)

$$4 \times 12 = 4 \times 10$$

$$10 + 2$$

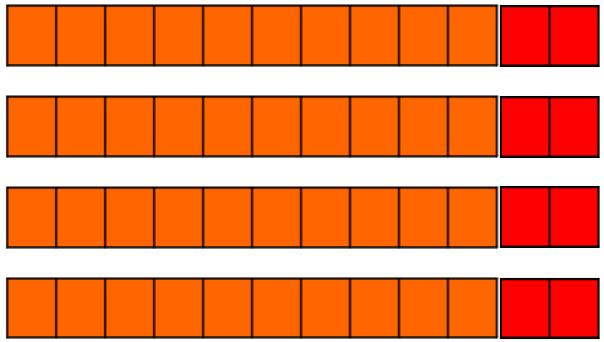


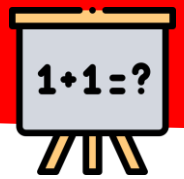


C30: Multiplier en ligne (1)

$$4 \times 12 = 4 \times 10 + 4 \times 2$$

$$10 + 2$$

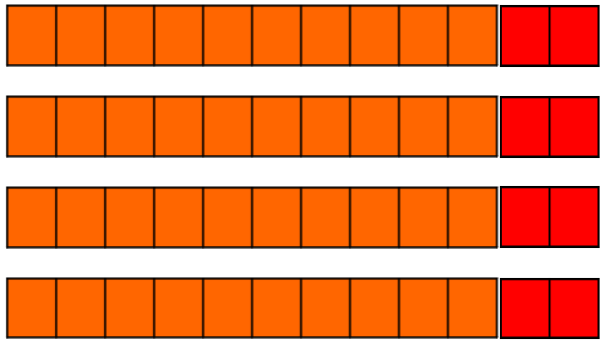


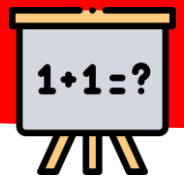


C30: Multiplier en ligne (1)

$$4 \times 12 = 4 \times 10 + 4 \times 2$$

$$10 + 2$$

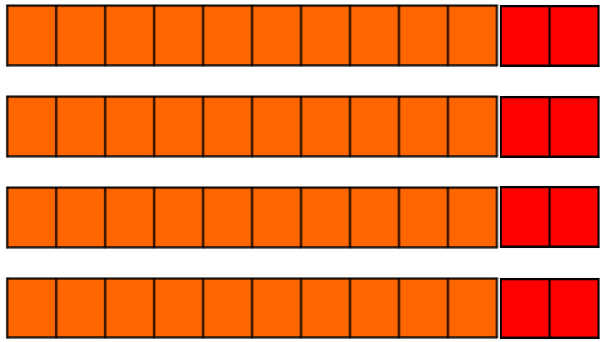


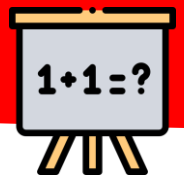


C30: Multiplier en ligne (1)

$$4 \times 12 = 4 \times 10 + 4 \times 2$$

$$10 + 2 \qquad 40$$

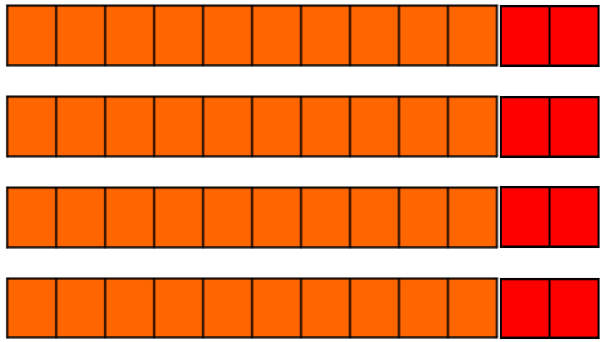


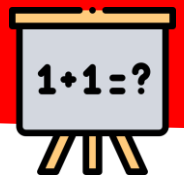


C30: Multiplier en ligne (1)

$$4 \times 12 = 4 \times 10 + 4 \times 2$$

$$10 + 2 \qquad 40$$

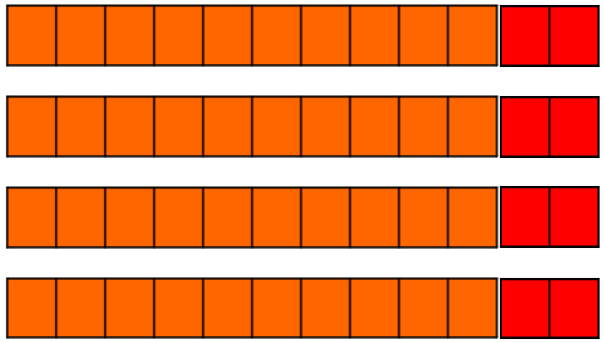


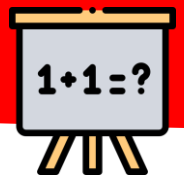


C30: Multiplier en ligne (1)

$$4 \times 12 = 4 \times 10 + 4 \times 2$$

$$10 + 2 \qquad 40 + 8$$

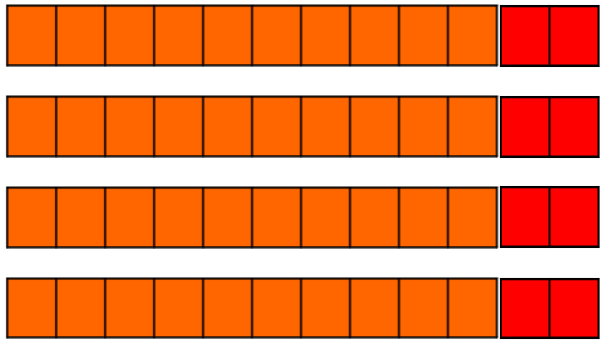


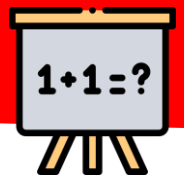


C30: Multiplier en ligne (1)

$$4 \times 12 = 4 \times 10 + 4 \times 2$$

$$10 + 2 \qquad 40 + 8$$





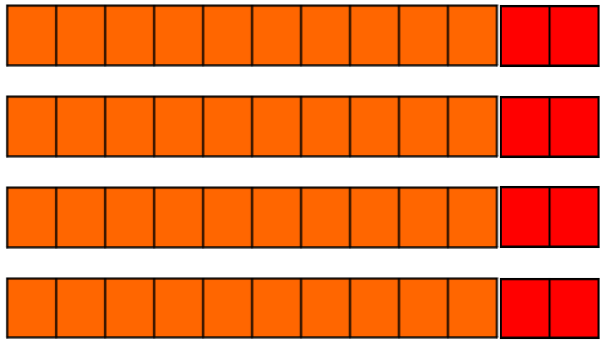
C30: Multiplier en ligne (1)

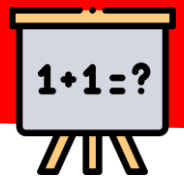
$$4 \times 12 = 4 \times 10 + 4 \times 2$$

$$10 + 2$$

$$40 + 8$$

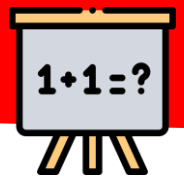
$$48$$





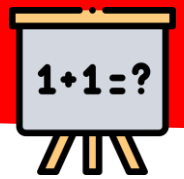
C30: Multiplier en ligne (1)

$$3 \times 15 =$$



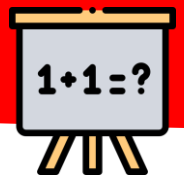
C30: Multiplier en ligne (1)

$3 \times 15 =$



C30: Multiplier en ligne (1)

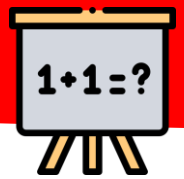
$3 \times 15 =$



C30: Multiplier en ligne (1)

$$3 \times 15 =$$

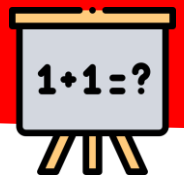
$$10 + 5$$



C30: Multiplier en ligne (1)

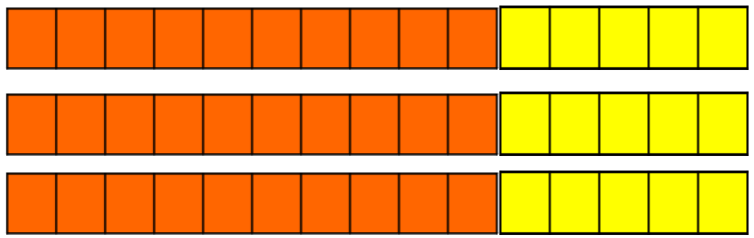
$3 \times 15 =$

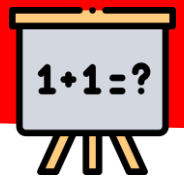
$10 + 5$



C30: Multiplier en ligne (1)

$$3 \times 15 = 10 + 5$$

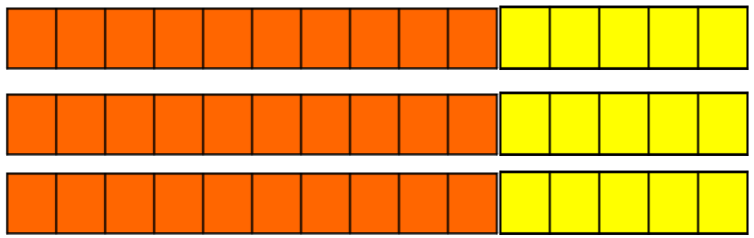


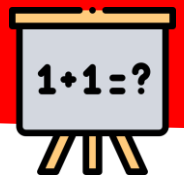


C30: Multiplier en ligne (1)

$$3 \times 15 = 3 \times 10$$

$$10 + 5$$

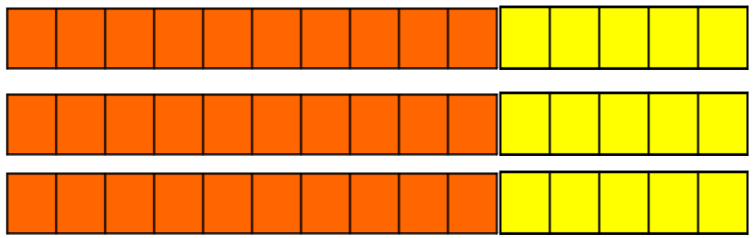


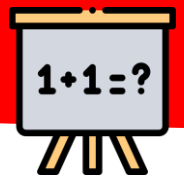


C30: Multiplier en ligne (1)

$$3 \times 15 = 3 \times 10 + 3 \times 5$$

$$10 + 5$$

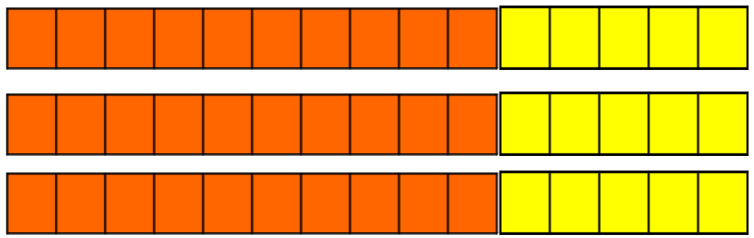


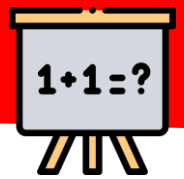


C30: Multiplier en ligne (1)

$$3 \times 15 = 3 \times 10 + 3 \times 5$$

$$10 + 5$$

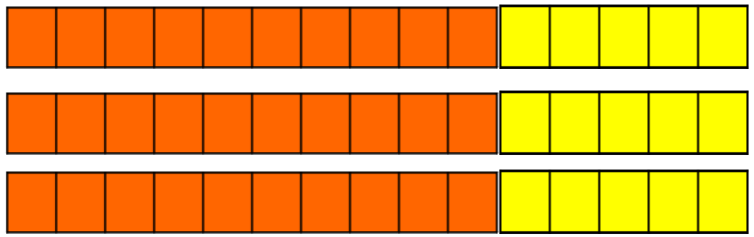


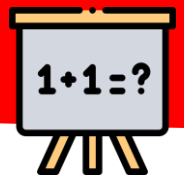


C30: Multiplier en ligne (1)

$$3 \times 15 = 3 \times 10 + 3 \times 5$$

$$10 + 5 \qquad 30$$

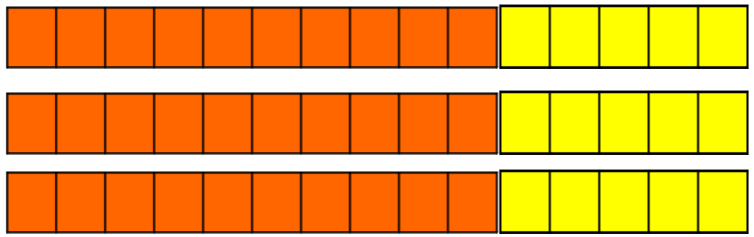


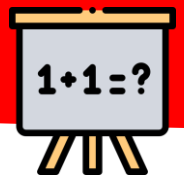


C30: Multiplier en ligne (1)

$$3 \times 15 = 3 \times 10 + 3 \times 5$$

$$10 + 5 \qquad 30$$

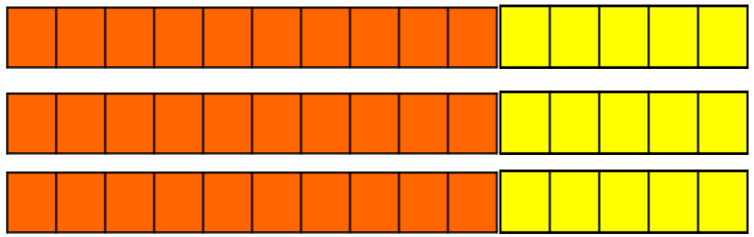




C30: Multiplier en ligne (1)

$$3 \times 15 = 3 \times 10 + 3 \times 5$$

$$10 + 5 \qquad 30 + 15$$

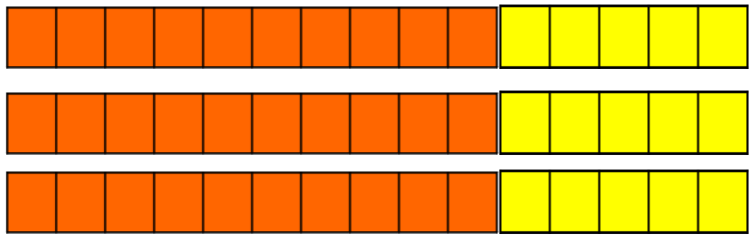


C30: Multiplier en ligne (1)

$3 \times 15 = 3 \times 10 + 3 \times 5$

$10 + 5$

$30 + 15$



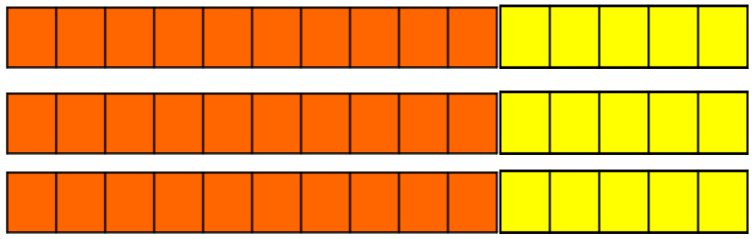
C30: Multiplier en ligne (1)

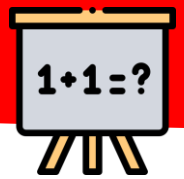
$3 \times 15 = 3 \times 10 + 3 \times 5$

$10 + 5$

$30 + 15$

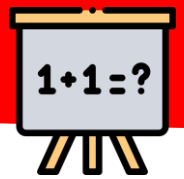
45





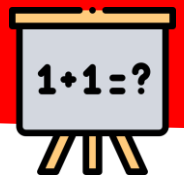
C30: Multiplier en ligne (1)

$$6 \times 13 =$$



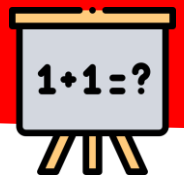
C30: Multiplier en ligne (1)

$$6 \times 13 =$$



C30: Multiplier en ligne (1)

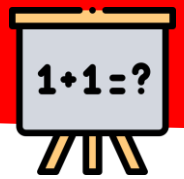
$$6 \times 13 =$$



C30: Multiplier en ligne (1)

$$6 \times 13 =$$

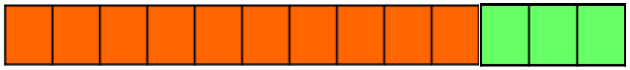
$$10 + 3$$

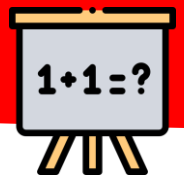


C30: Multiplier en ligne (1)

$$6 \times 13 =$$

$$10 + 3$$

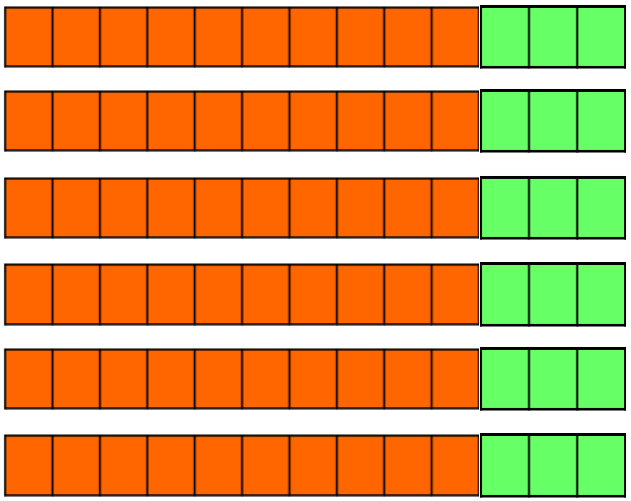


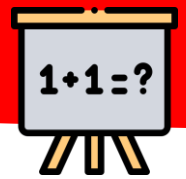


C30: Multiplier en ligne (1)

$$6 \times 13 =$$

$$10 + 3$$

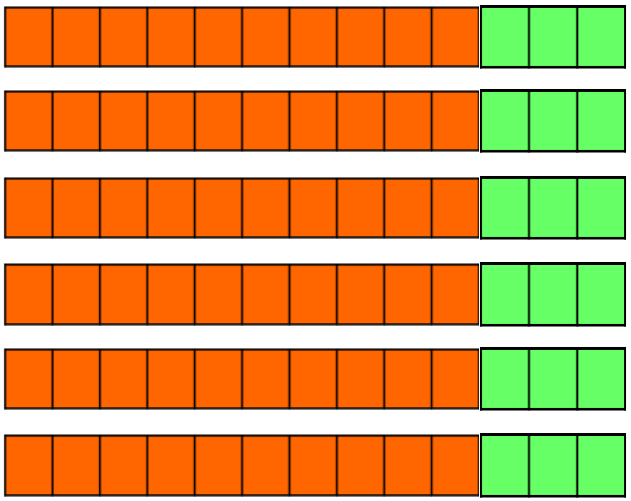


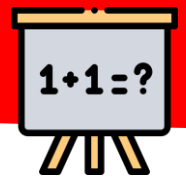


C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10$$

$$10 + 3$$

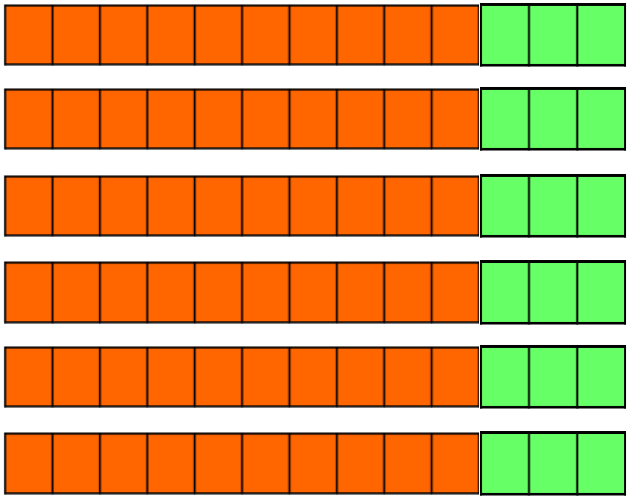


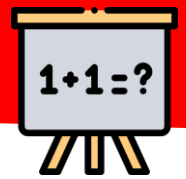


C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$

$$10 + 3$$

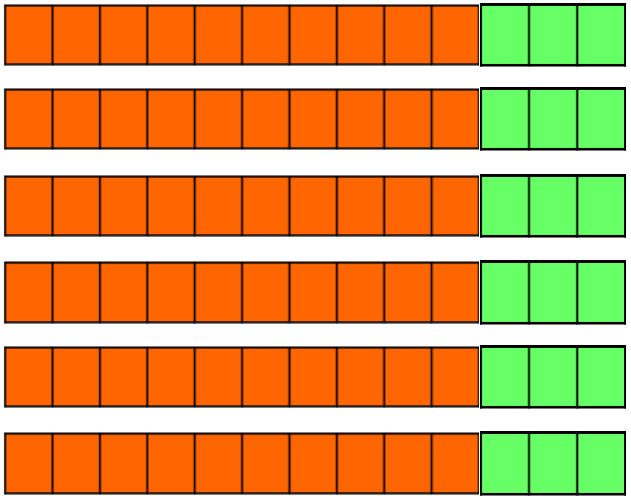


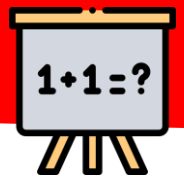


C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$

$$10 + 3$$

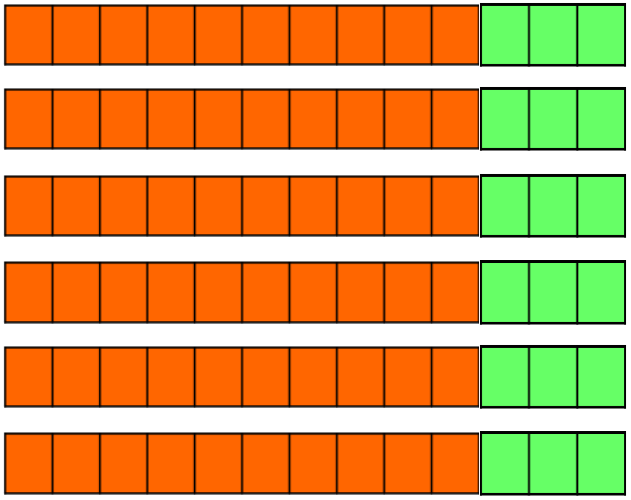




C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$

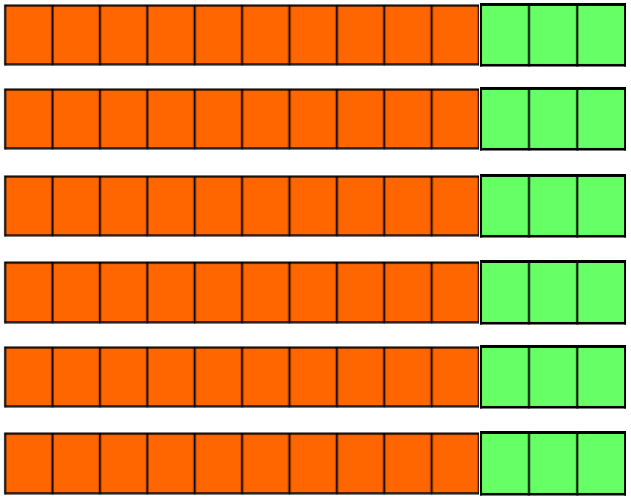
$$10 + 3 \qquad 60$$



C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$

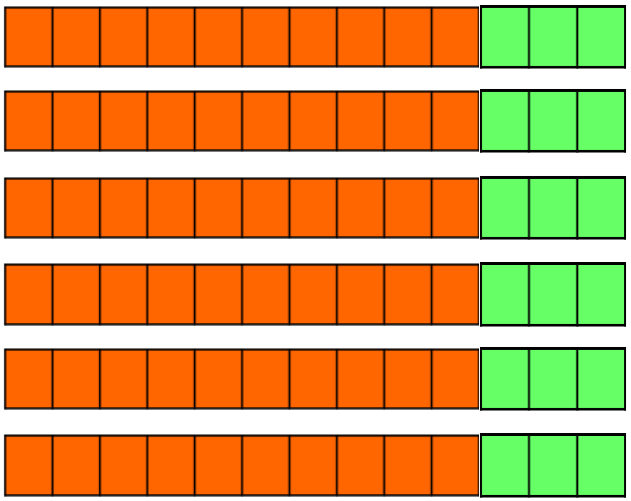
$$10 + 3 \qquad 60$$



C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$

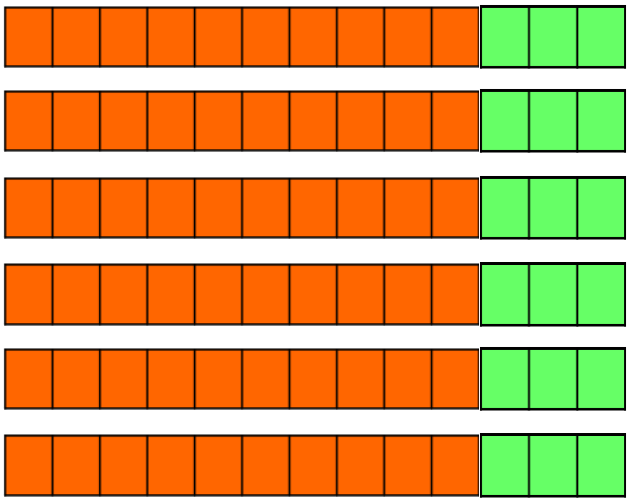
$$10 + 3 \qquad 60 + 18$$



C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$

$$10 + 3 \qquad 60 + 18$$



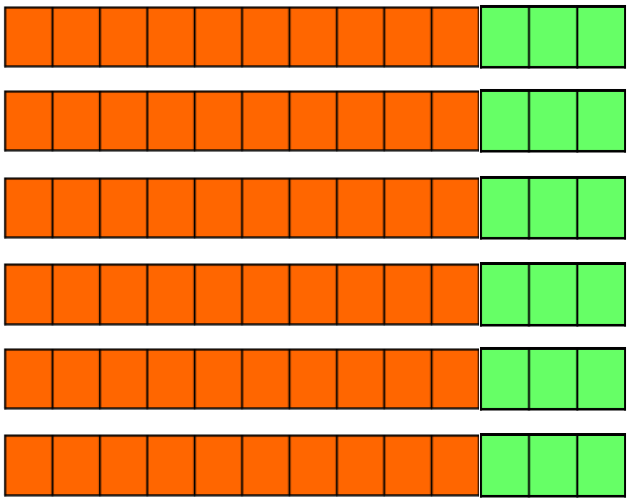
C30: Multiplier en ligne (1)

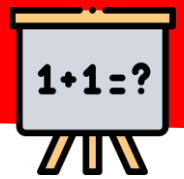
$$6 \times 13 = 6 \times 10 + 6 \times 3$$

$$10 + 3$$

$$60 + 18$$

$$78$$





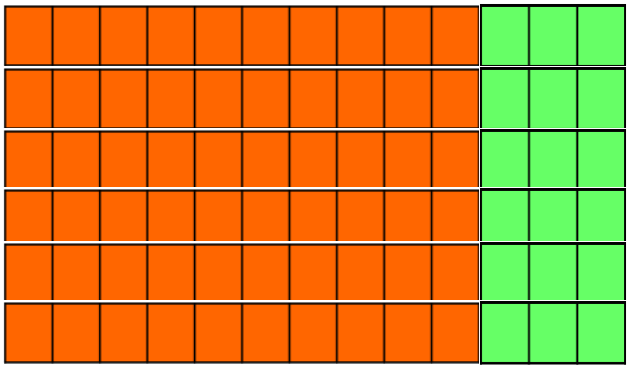
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$

$$10 + 3$$

$$60 + 18$$

$$78$$



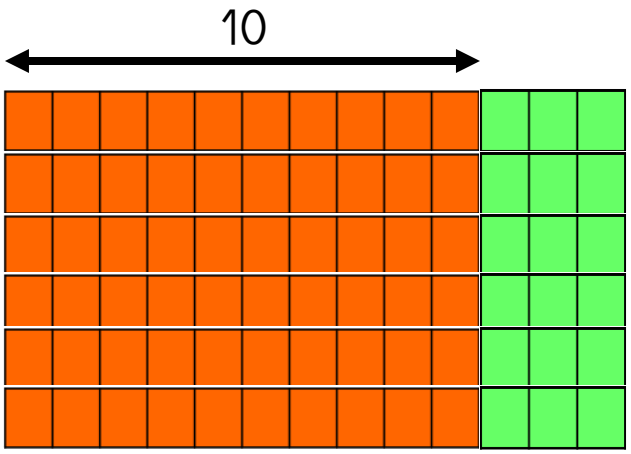
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$

$$10 + 3$$

$$60 + 18$$

$$78$$

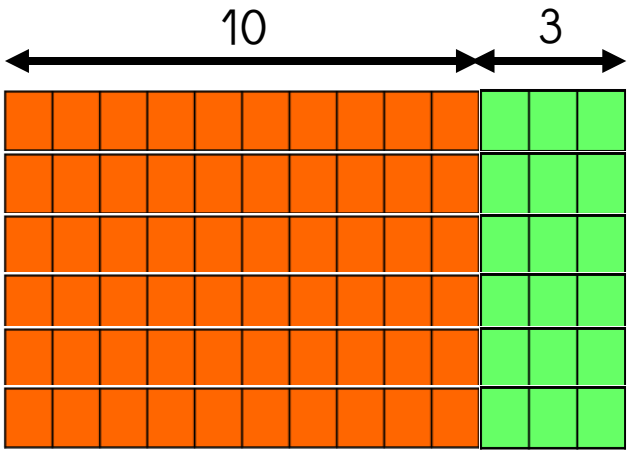


C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$

$$10 + 3 \qquad 60 + 18$$

$$78$$

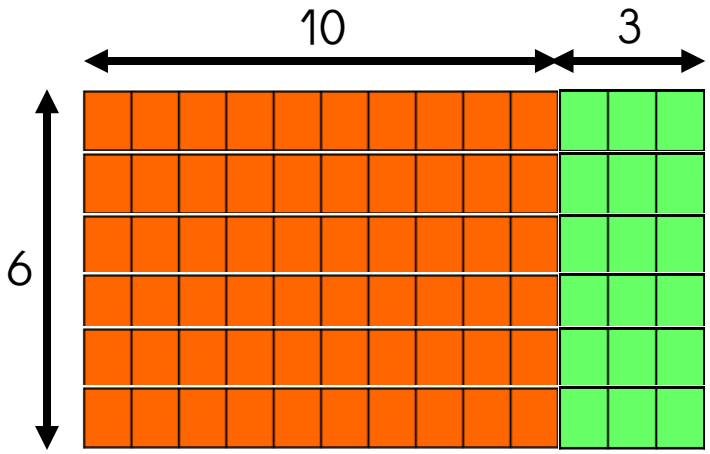


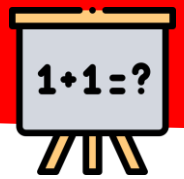
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$

$$10 + 3 \qquad 60 + 18$$

$$78$$





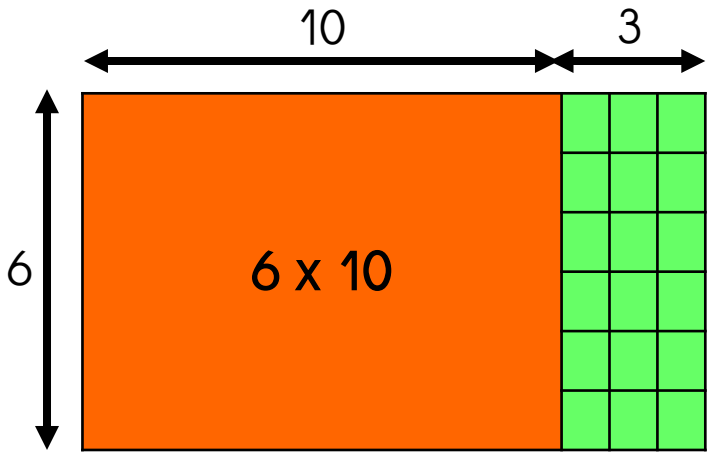
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$

$$10 + 3$$

$$60 + 18$$

$$78$$



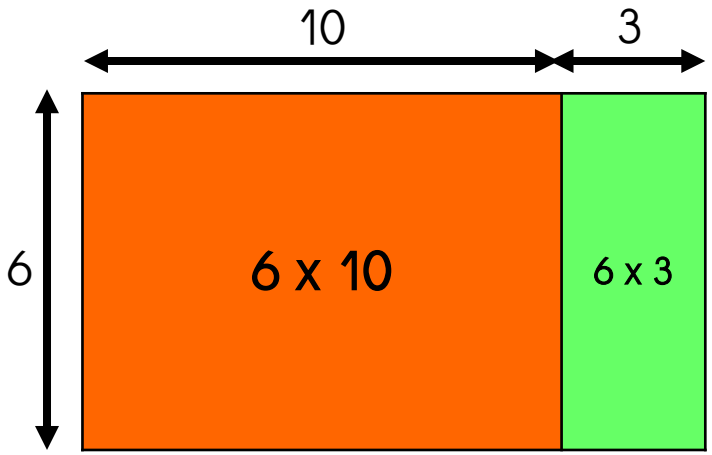
C30: Multiplier en ligne (1)

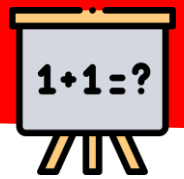
$$6 \times 13 = 6 \times 10 + 6 \times 3$$

$$10 + 3$$

$$60 + 18$$

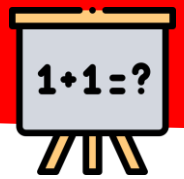
$$78$$





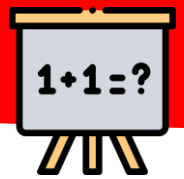
C30: Multiplier en ligne (1)

$$6 \times 13 =$$



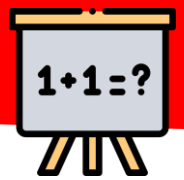
C30: Multiplier en ligne (1)

$6 \times 13 =$



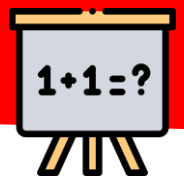
C30: Multiplier en ligne (1)

$6 \times 13 = 6 \times$



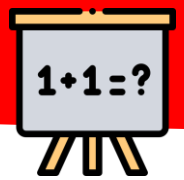
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10$$



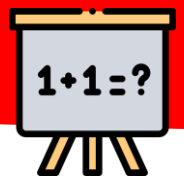
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times$$



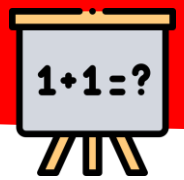
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3$$



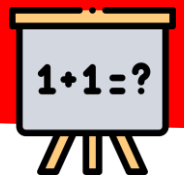
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3 =$$



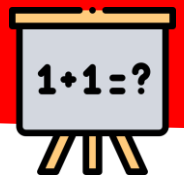
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3 =$$



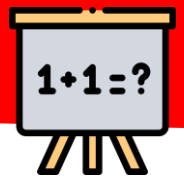
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3 = 60$$



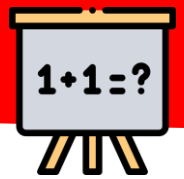
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3 = 60$$



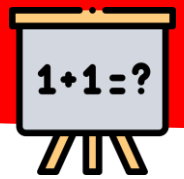
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3 = 60 + 18$$



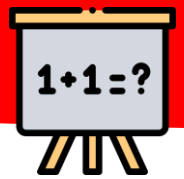
C30: Multiplier en ligne (1)

$$6 \times 13 = \boxed{6 \times 10} + \boxed{6 \times 3} = \boxed{60 + 18} =$$



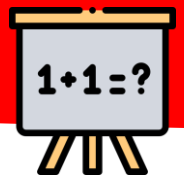
C30: Multiplier en ligne (1)

$$6 \times 13 = 6 \times 10 + 6 \times 3 = 60 + 18 = 78$$



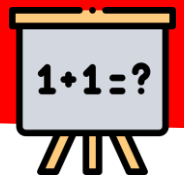
C30: Multiplier en ligne (1)

$5 \times 17 =$



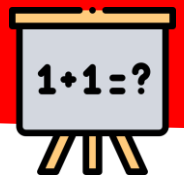
C30: Multiplier en ligne (1)

$5 \times 17 =$



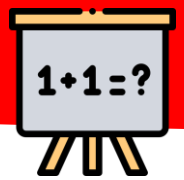
C30: Multiplier en ligne (1)

$5 \times 17 = 5 \times$



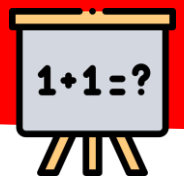
C30: Multiplier en ligne (1)

$5 \times 17 = 5 \times 10 +$



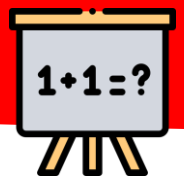
C30: Multiplier en ligne (1)

$$5 \times 17 = 5 \times 10 + 5 \times$$



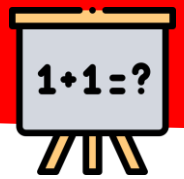
C30: Multiplier en ligne (1)

$$5 \times 17 = 5 \times 10 + 5 \times 7$$



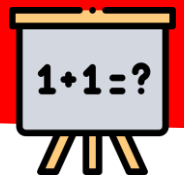
C30: Multiplier en ligne (1)

$$5 \times 17 = 5 \times 10 + 5 \times 7 =$$



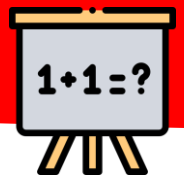
C30: Multiplier en ligne (1)

$5 \times 17 = 5 \times 10 + 5 \times 7 =$



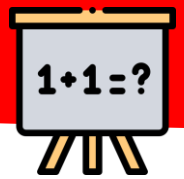
C30: Multiplier en ligne (1)

$$5 \times 17 = 5 \times 10 + 5 \times 7 = 50$$



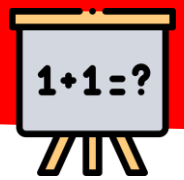
C30: Multiplier en ligne (1)

$$5 \times 17 = 5 \times 10 + 5 \times 7 = 50$$



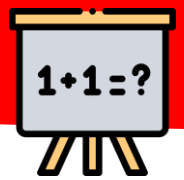
C30: Multiplier en ligne (1)

$$5 \times 17 = 5 \times 10 + 5 \times 7 = 50 + 35$$



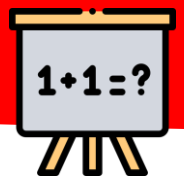
C30: Multiplier en ligne (1)

$$5 \times 17 = 5 \times 10 + 5 \times 7 = 50 + 35$$



C30: Multiplier en ligne (1)

$$5 \times 17 = \boxed{5 \times 10} + \boxed{5 \times 7} = \boxed{50 + 35} =$$



C30: Multiplier en ligne (1)

$$5 \times 17 = 5 \times 10 + 5 \times 7 = 50 + 35 = 85$$

Tableau des stratégies pour multiplier

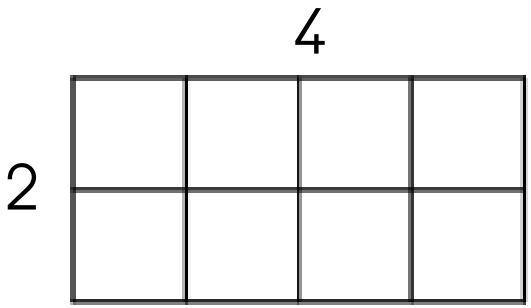
1 Utiliser une addition itérée

$2 + 2 + 2 + 2 = 8$

→ $4 \times 2 = 8$

Je compte le nombre de groupes.

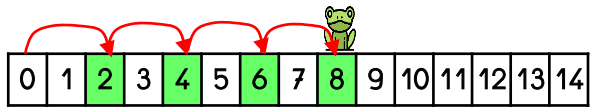
2 Utiliser un quadrillage



→ $4 \times 2 = 8$

Je compte le nombre de lignes et de colonnes.

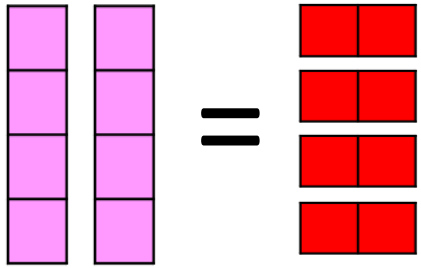
3 Faire des bonds



$4 \times 2 = 8$

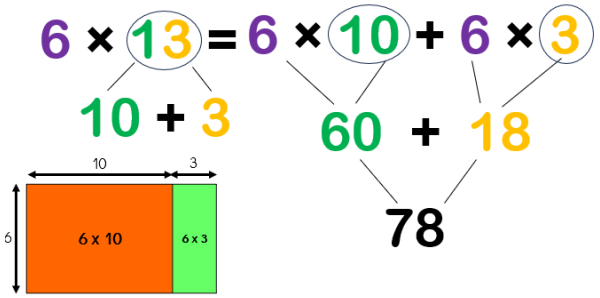
Je fais des bonds en avançant toujours du même nombre.

4 Utiliser la commutativité



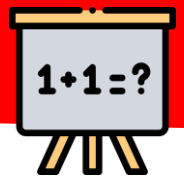
Si je sais que 2 x 4 = 8 alors 4 x 2 = 8 aussi.

5 Utiliser la distributivité



Je décompose les nombres puis je multiplie les dizaines et les unités.

6

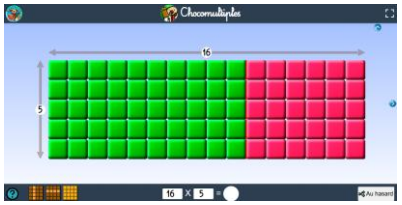


C30: Multiplier en ligne (1)

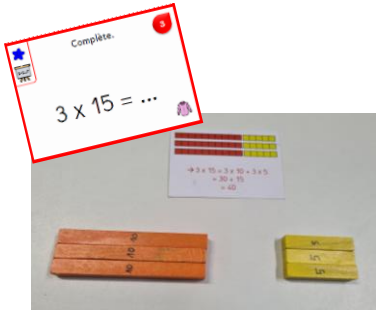
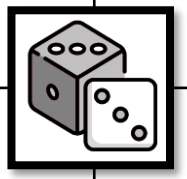
Pour multiplier en ligne deux nombres, on décompose le plus grand nombre.

Ensuite on multiplie les dizaines puis les unités et on rassemble tout.

C30: Multiplier en ligne (1)



<u>Educajou</u>: Chocomultiple



Cartes chemise