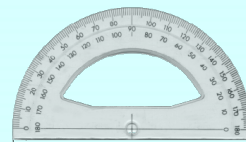
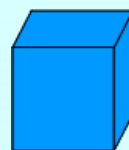


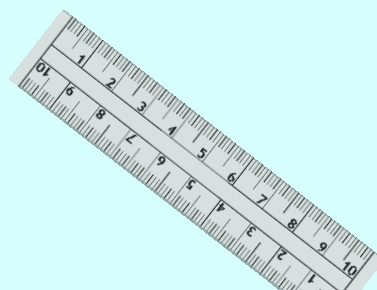
mathématiques 10e année



Salle 108
Mme Barton



le lundi 11 mars 2024



août 27-16:35

Chapitre 3

La multiplication de polynômes

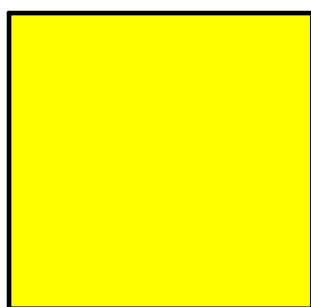
But du cours: AN4

Démontre une compréhension
de la multiplication des expressions
polynomiales
(monômes, binômes et trinômes)

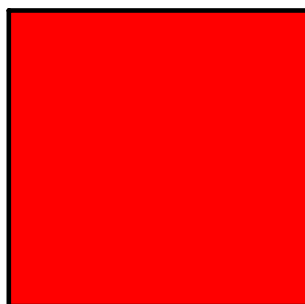
oct. 5-10:50

Révision de 9e année Multiplier les polynômes

oct. 5-16:37



x^2



$-x^2$



x



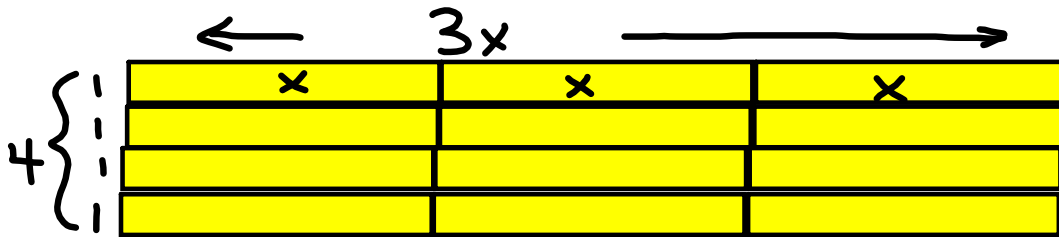
$-x$

$\square +1$

$\square -1$

oct. 5-16:42

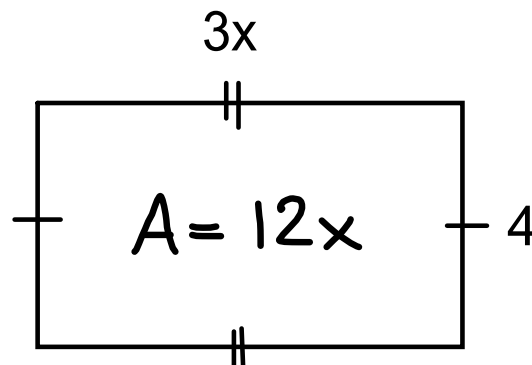
$$4 (3x) = 12x$$



Ce produit peut être modélisé par 4 rangées composées de $3x$.

oct. 5-16:43

$$4 (3x) = 12x$$



Il est aussi possible de modéliser $4 (3x)$ sous la forme de l'aire d'un rectangle dont les dimensions sont 4 et $3x$.

oct. 5-16:45

$$\underline{2} \underline{(-2x + 3)}$$

2 groupes

Méthode # 1

Carreaux algébriques



$$= (-4x + 6)$$

oct. 5-16:46

$$2 (-2x + 3)$$

Méthode # 2

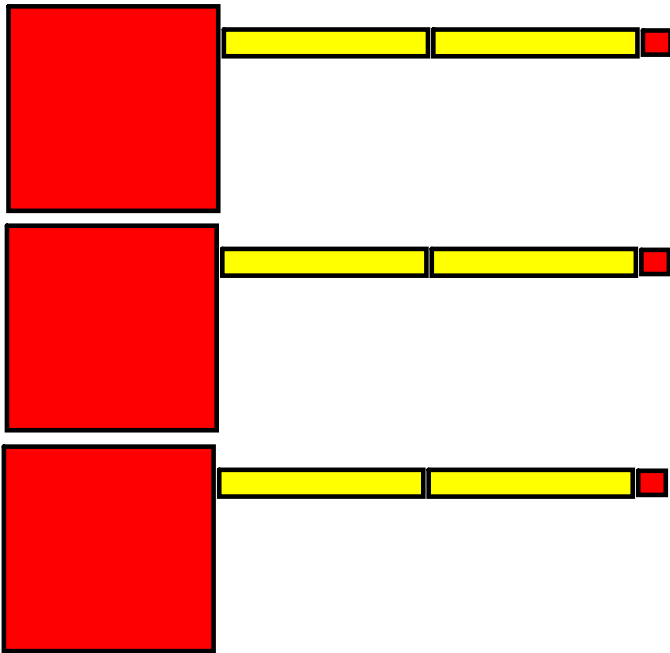
La distributivité - Multiplie chaque terme du binôme par le terme constant

$$2 (-2x + 3)$$

$$= (-4x + 6)$$

oct. 5-16:47

$$3(-n^2 + 2n - 1)$$



Méthode # 1
Carreaux algébriques

$$-3n^2 + 6n - 3$$

oct. 5-16:48

$$3(-n^2 + 2n - 1)$$

Méthode # 2

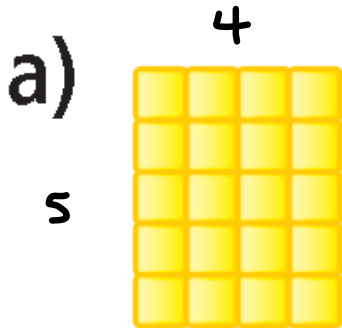
La distributivité - Multiplie chaque terme du trinôme par le terme constant

$$3(-n^2 + 2n - 1)$$

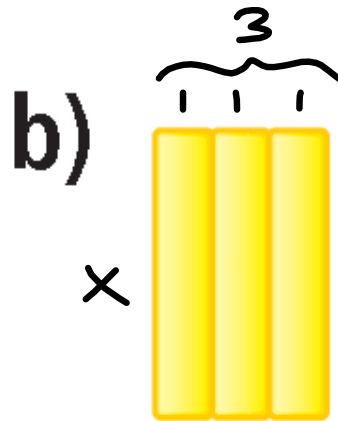
$$= -3n^2 + 6n - 3$$

oct. 5-16:48

Écris l'expression polynomiale de multiplication que représente chacun des ensembles de carreaux algébriques suivants.



$$(4)(5) = \underline{\underline{20}}$$



$$3(x) = \underline{\underline{3x}}$$

oct. 5-16:49



$$2(x+2) = 2x+4$$



$$3(3x+2) = 9x+6$$

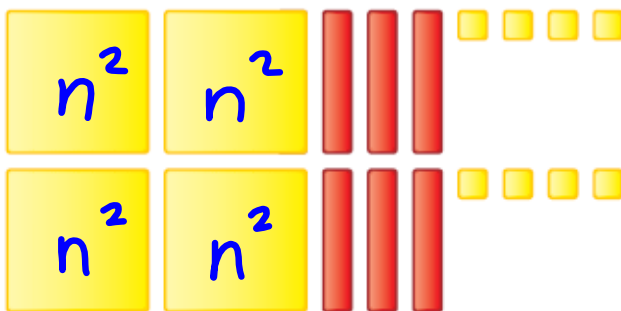
oct. 5-16:50

■ a) Cet ensemble de carreaux algébriques représente un des produits ci-dessous. Lequel ?

i) $2(-2n^2 + 3n + 4)$

ii) $2(2n^2 - 3n + 4) = 4n^2 - 6n + 8$

iii) $-2(2n^2 - 3n + 4)$



oct. 5-16:50

Multiplie!

$$1) \quad 2(2x^2 - 3xy + 7y^2)$$

$$= 4x^2 - 6xy + 14y^2$$

$$2) \quad -4(pq + 3p^2 - 3q^2)$$

$$= -4pq - 12p^2 + 12q^2$$

oct. 5-16:52

Multiplie!

$$\textcircled{3} \quad (-2gh + 6h^2 - 3g^2 - 9g) (5)$$

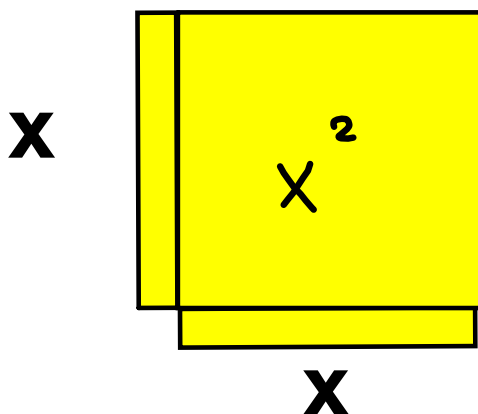
$$-10gh + 30h^2 - 15g^2 - 45g$$

$$\textcircled{4} \quad -2 (4t^3 - 2t^2 - 7t + 4)$$

$$-8t^3 + 4t^2 + 14t - 8$$

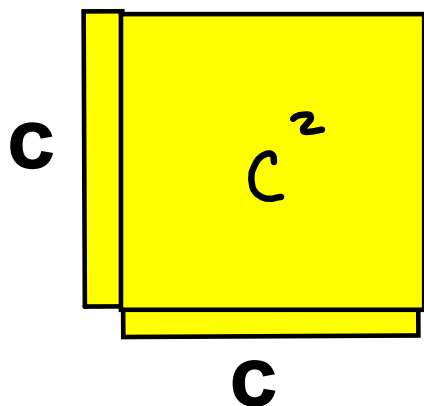
oct. 5-16:53

$$(x) (x) = x^2$$



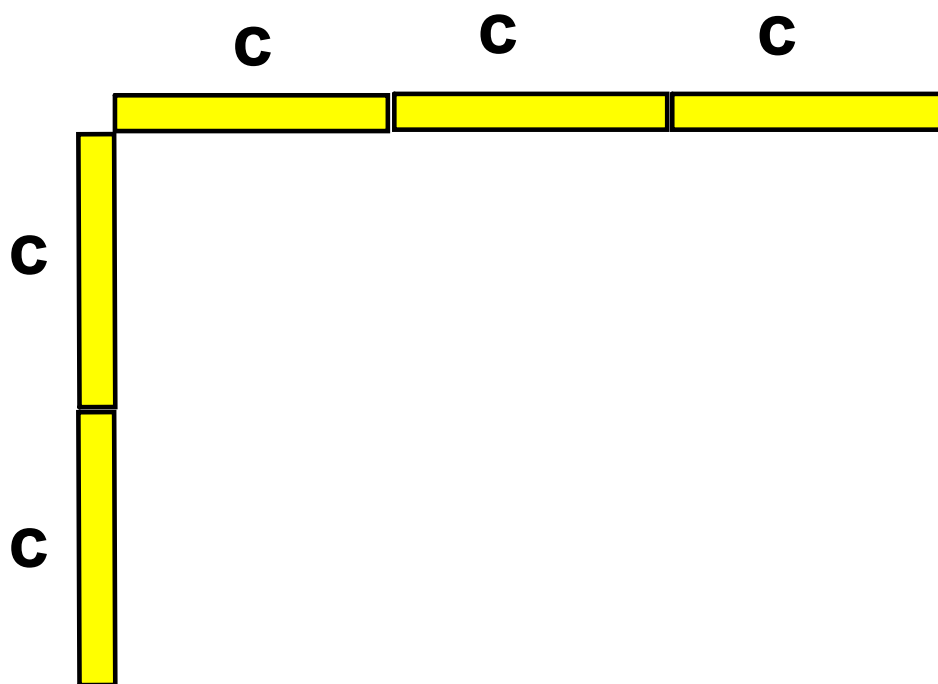
oct. 5-16:54

$$(c)(c) = c^2$$



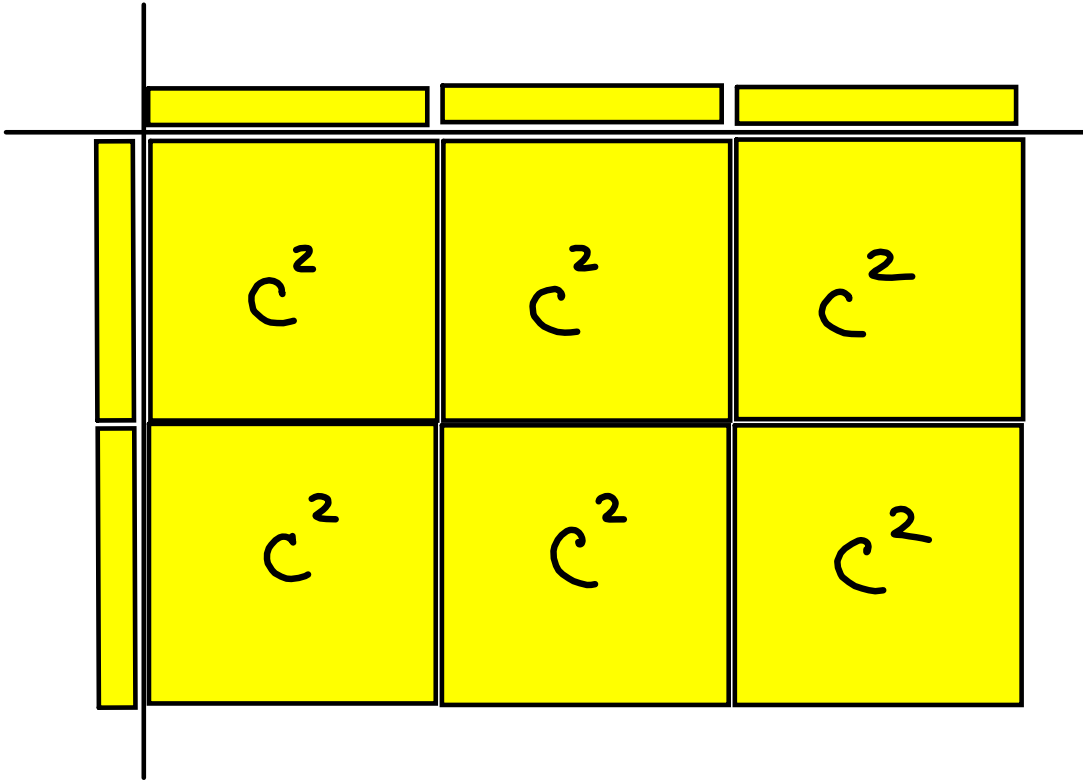
oct. 5-16:54

Dessine: $(2c)(3c)$



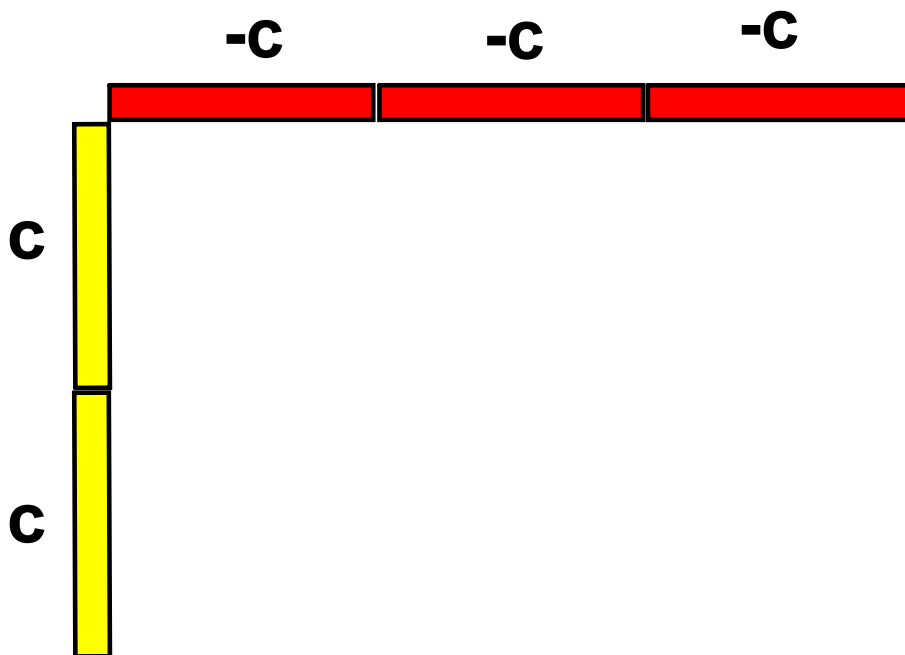
oct. 5-16:55

$$(2c)(3c) = 6c^2$$



oct. 5-16:55

Dessine: $(2c)(-3c)$



oct. 5-16:55

$(2c) (-3c) = -6c^2$

	-c	-c	-c
c	$-c^2$	$-c^2$	$-c^2$
c	$-c^2$	$-c^2$	$-c^2$

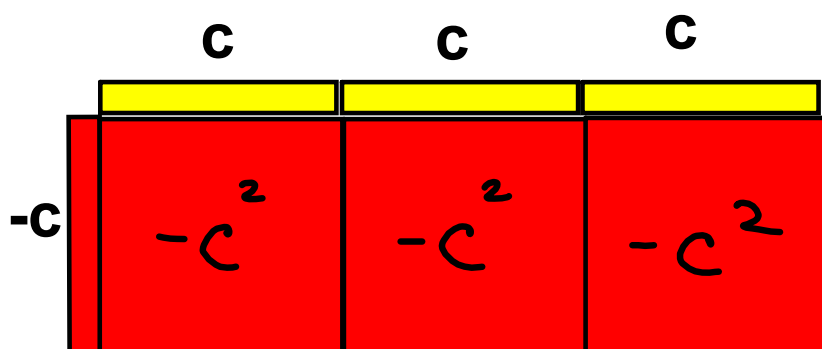
oct. 5-16:56

Dessine: $(3c) (-c)$

	c	c	c
-c			

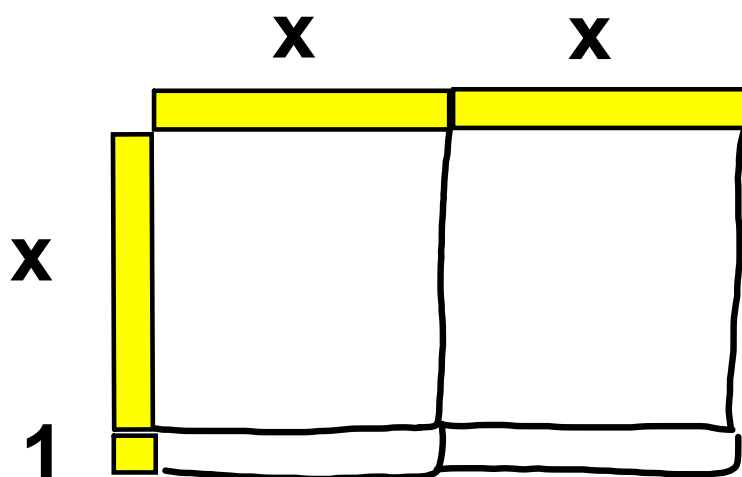
oct. 5-16:56

Dessine: $(3c)(-c) = -3c^2$



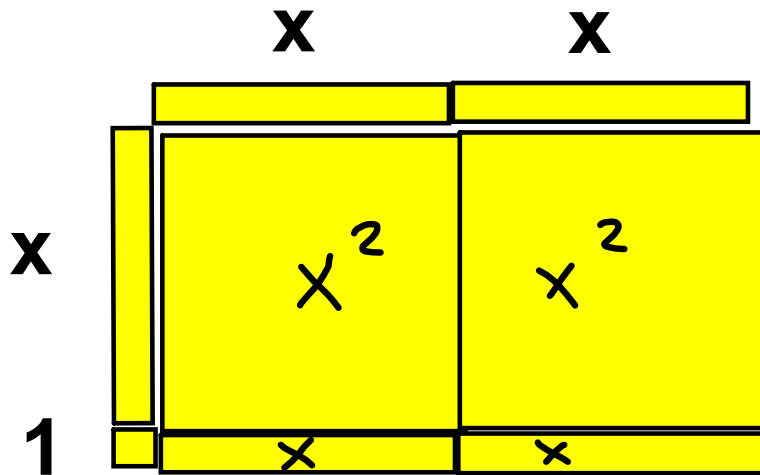
oct. 5-16:56

Dessine: $(2x)(x + 1)$



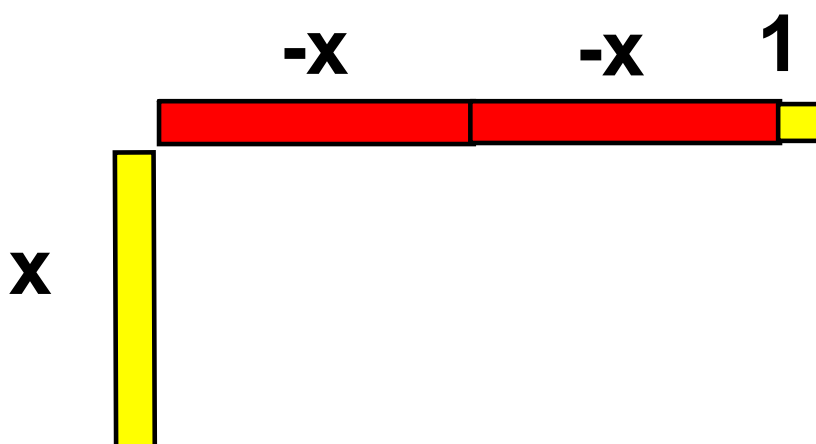
oct. 5-16:57

Dessine: $(2x)(x + 1) = 2x^2 + 2x$



oct. 5-16:57

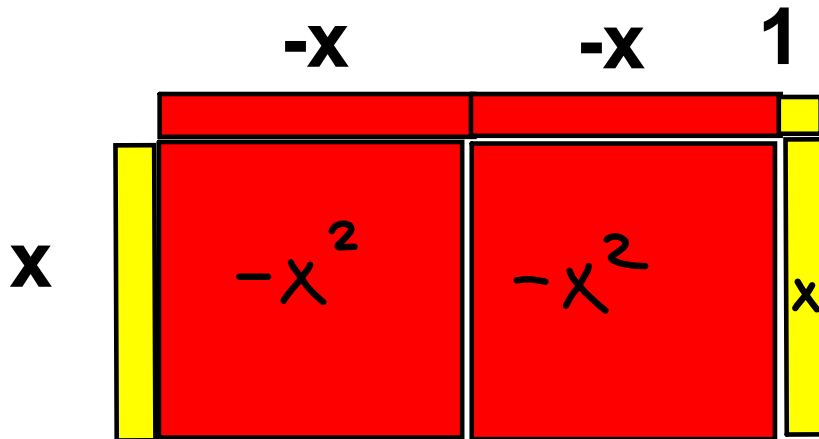
Dessine: $(x)(-2x + 1)$



oct. 5-16:57

Dessine: $(x)(-2x + 1)$

$$= -2x^2 + x$$



oct. 5-16:57

Cet ensemble de carreaux algébriques représente un des produits ci-dessous.

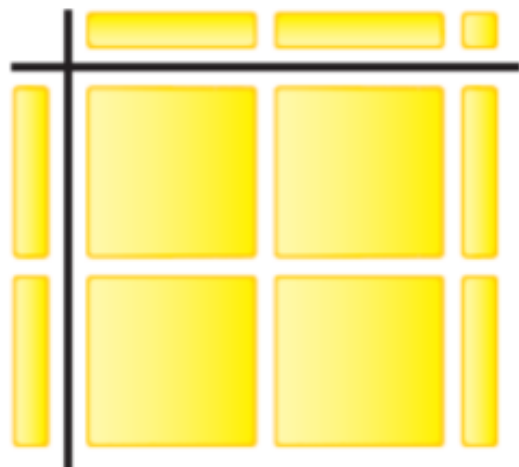
Lequel ?

a) $2n(n + 2)$

b) $2(2n^2 + 1)$

c) $2n(2n + 1)$

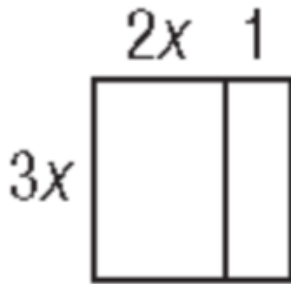
$$= 4n^2 + 2n$$



oct. 5-17:00

Écris l'expression polynomiale de multiplication que représente chacun des rectangles suivants.

a)

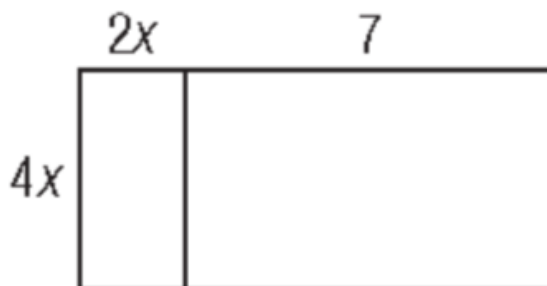


$$3x(2x+1)$$
$$= 6x^2 + 3x$$

oct. 5-17:01

Écris l'expression polynomiale de multiplication que représente chacun des rectangles suivants.

b)



$$4x(2x+7)$$
$$= 8x^2 + 28x$$

oct. 5-17:01

Calcule les produits suivants.

$$\text{a) } 3m(2n + 4) = 6mn + 12m$$

$$\text{b) } (-5 + 3f)(-2g) = 10g - 6fg$$

$$\text{c) } 7m(-6p + 7m) = -42mp + 49m^2$$

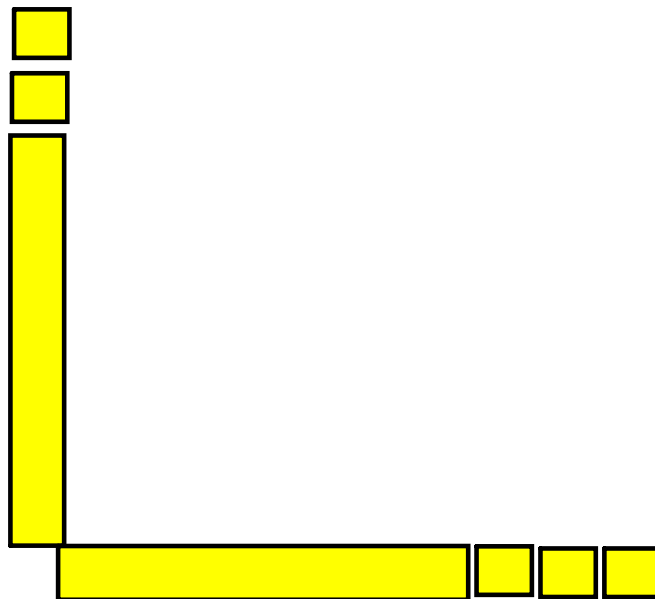
$$\text{d) } (-8h - 3k)(4k) = -32hk - 12k^2$$

$$\text{e) } (-2t + 3r)(4t) = -8t^2 + 12rt$$

$$\text{f) } (-g)(8h - 5g) = -8gh + 5g^2$$

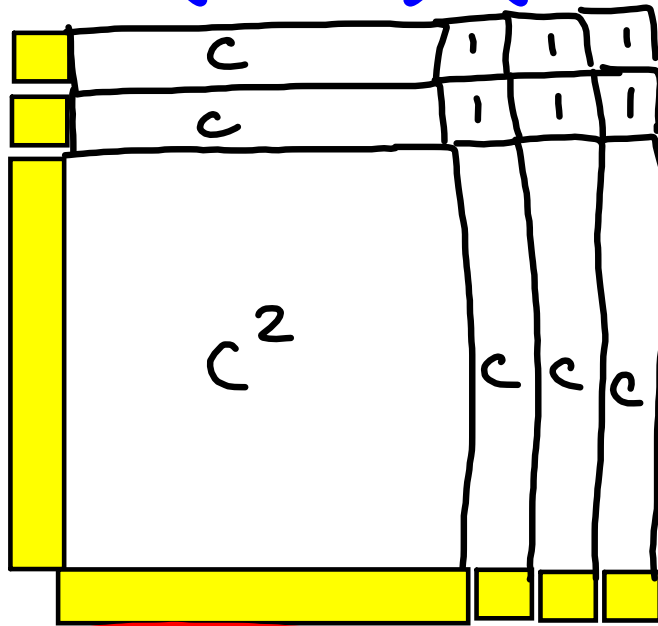
oct. 5-17:02

Dessine: $(c+3)(c+2)$



oct. 5-17:05

Dessine: $(c+3)(c+2)$



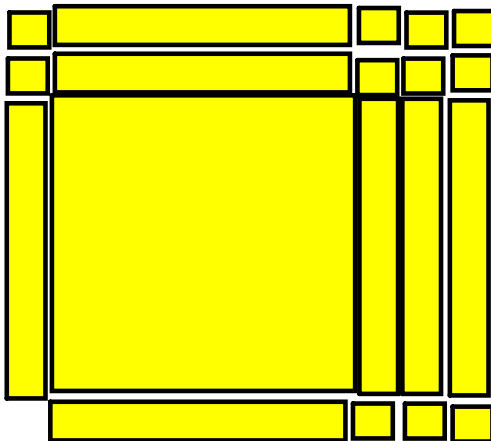
$$= c^2 + 5c + 6$$

oct. 5-17:05

Développe: $(c+3)(c+2)$

Méthode # 1

Carreaux algébriques



$$= c^2 + 5c + 6$$

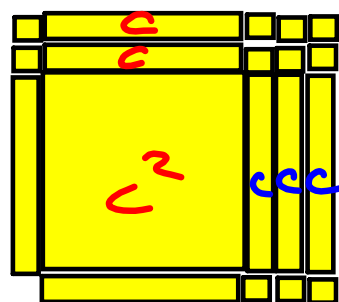
oct. 5-17:05

Méthode # 2
La distributivité

$$(c+3)(c+2)$$

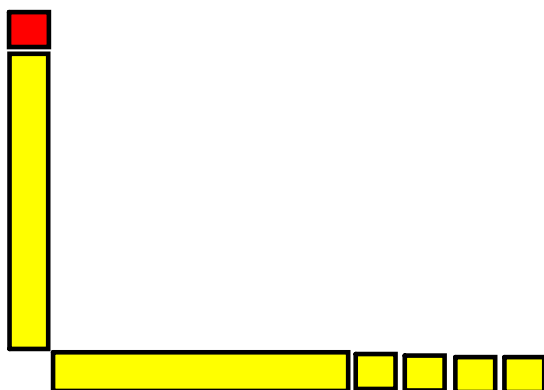
$$= c^2 + 2c + 3c + 6$$

$$= c^2 + 5c + 6$$



oct. 5-17:05

Dessine: $(c-1)(c+4)$



oct. 5-17:05

Dessine: $(c-1)(c+4)$

$c^2 - c + 4c - 4$

$c^2 + 3c - 4$

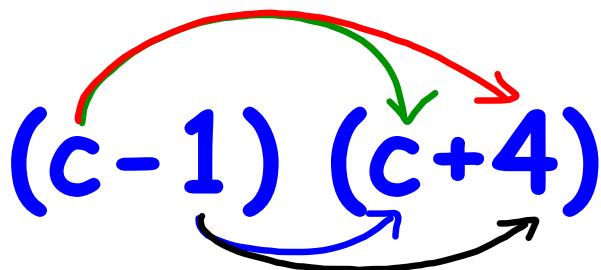
oct. 5-17:05

Développe: $(c-1)(c+4)$

Méthode # 1
Carreaux algébriques

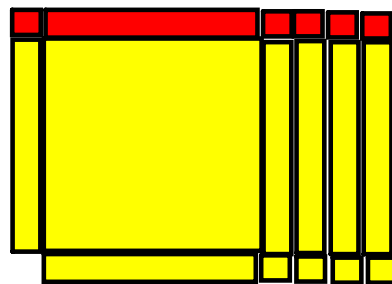
oct. 5-17:05

Méthode # 2
La distributivité

$$(c-1)(c+4)$$


$$c^2 + 4c - c - 4$$

$$c^2 + 3c - 4$$



oct. 5-17:05