

21.09.21

$$b) \quad 3 - (xz + y^2) \\ = 3 - xz - y^2$$

$$e) \quad (2a + b - c) - (3a - b + c) \\ = \underline{2a} + \underline{b} - \underline{c} - \underline{3a} + \underline{b} - \underline{c} \\ = -a + 2b - 2c$$

$$f) \quad (\underline{2a} + \underline{b} - \underline{c}) (\underline{3a} - \underline{b} + \underline{c}) = \underline{6a^2 - b^2 - c^2 + ab - ac + 2bc}$$

	<u>2a</u>	<u>+b</u>	<u>-c</u>
<u>3a</u>	6a²	3ab	-3ac
<u>-b</u>	-2ab	-b²	+bc
<u>+c</u>	2ac	bc	-c²

$$\text{j) } \left(u + \frac{v}{4}\right) + \left(\frac{3u}{4} - \frac{5v}{6}\right) = u + \frac{v}{4} + \frac{3u}{4} - \frac{5v}{6} = \frac{12u}{12} + \frac{3v}{12} + \frac{9u}{12} - \frac{10v}{12}$$

$$\text{k) } \left(u + \frac{v}{4}\right) - \left(\frac{3u}{4} - \frac{5v}{6}\right) = \frac{21u}{12} - \frac{7v}{12} = \frac{7}{4}u - \frac{7}{12}v = \frac{7u}{4} - \frac{7v}{12}$$

$$= \frac{21u - 7v}{12}$$

$$\text{l) } \left(u + \frac{v}{4}\right) \left(\frac{3u}{4} - \frac{5v}{6}\right) = \frac{3u^2}{4} - \frac{5uv}{6} + \frac{3uv}{16} - \frac{5v^2}{24}$$

$$= \frac{3u^2}{4} - \frac{40uv}{48} + \frac{9uv}{48} - \frac{5v^2}{24} = \frac{3}{4}u^2 - \frac{31}{48}uv - \frac{5}{24}v^2$$

Produits remarquables

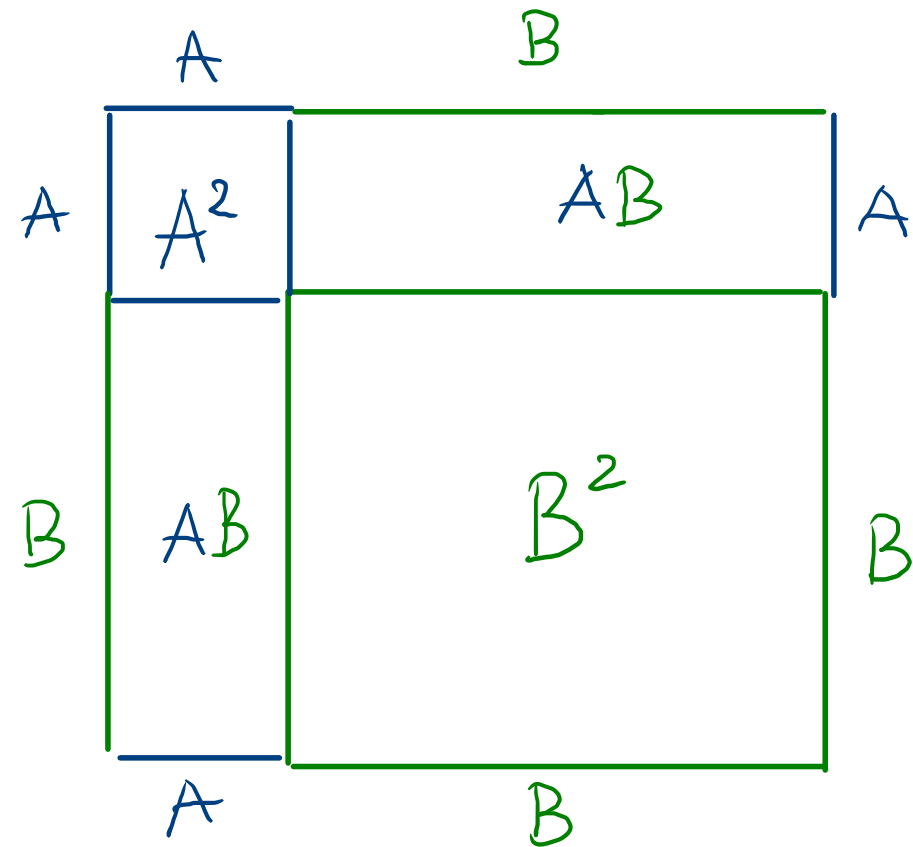
$$(A + B)^2 = A^2 + 2AB + B^2$$

$$(A - B)^2 = A^2 - 2AB + B^2$$

$$(A + B)(A - B) = A^2 - B^2$$

$$(A + B)^3 = A^3 + 3A^2B + 3AB^2 + B^3$$

$$(A - B)^3 = A^3 - 3A^2B + 3AB^2 - B^3$$



$$(a+b)^0 = 1$$

$$(a+b)^1 = a + b$$

$$(a+b)^2 = a^2 + 2ab + b^2$$

$$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$$

$$(a+b)^4 = a^4 + 4a^3b + 6a^2b^2 + 4ab^3 + b^4$$

$$(a+b)^5 = a^5 + 5a^4b + 10a^3b^2 + 10a^2b^3 + 5ab^4 + b^5$$

$$(a+b)^6 = a^6 + 6a^5b + 15a^4b^2 + 20a^3b^3 + 15a^2b^4 + 6ab^5 + b^6$$

Triangle de Pascal

1									
1	1								
1	2	1							
1	3	3	1						
1	4	6	4	1					
1	5	10	10	5	1				
1	6	15	20	15	6	1			
1	7	21	35	35	21	7	1		
1	8	28	56	70	56	28	8	1	
1	9	36	84	126	126	84	36	9	1

$C_5^3 + C_5^4$
 C_6^4

