EXEMPLES DE GRAPHIQUES AVEC TIKZ

Exercice 1 :

Avec Pstricks : version Philippe année 2007

$$k \times (a+b) = k \times a + k \times b$$

Voici la formule de la distributivité : $k \times (a+b) = k \times a + k \times b$ vue en 5e.

$$(a+b) \times (c+d) = a \times c + a \times d + b \times c + b \times d$$

Voici la formule de la distributivité : $(a+b) \times (c+d) = a \times c + a \times d + b \times c + b \times d$ vue en 4e.

Avec Tikz : version Dominique

$$a \times (b+c) = a \times b + a \times c$$

$$(a+b) \times (c+d) = a \times c + a \times d + b \times c + b \times d$$

Au milieu d'un texte :

Voici la formule de la simple distributivité : $a \times (b+c) = a \times b + a \times c$ (vue en 5ème).

Voici la formule de la double distributivité : $(a+b) \times (c+d) = a \times c + a \times d + b \times c + b \times d$ (vue en 4ème).

Avec Tikz : version améliorée

$$a \times (b+c) = a \times b + a \times c$$

$$(a+b) \times (c+d) = a \times c + a \times d + b \times c + b \times d$$

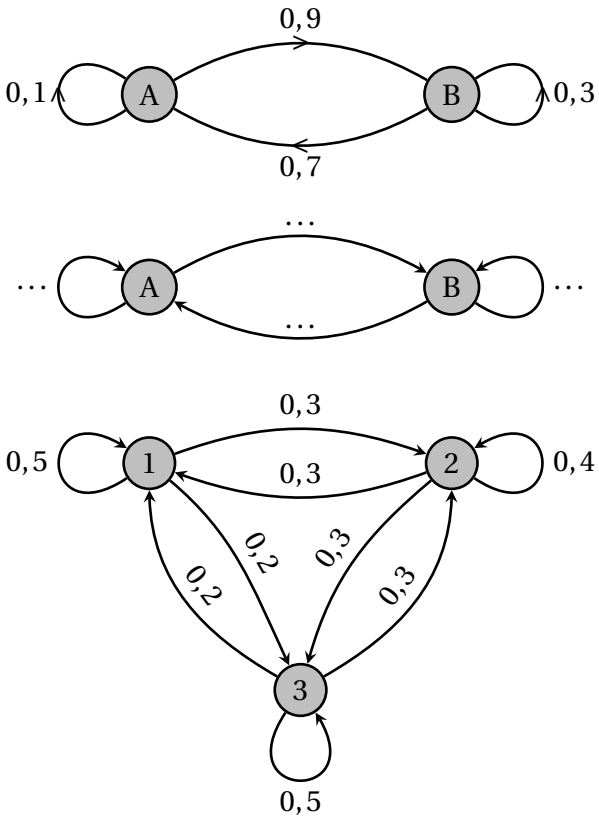
Au milieu d'un texte :

Voici la formule de la simple distributivité : $a \times (b+c) = a \times b + a \times c$ (vue en 5ème).

Voici la formule de la double distributivité : $(a+b) \times (c+d) = a \times c + a \times d + b \times c + b \times d$ (vue en 4ème).

Son graphique est…	Expressions des fonctions :	C'est…
… une droite	$f(x) = 5$	… une fonction affine
… une parabole	$g(x) = x + 4$	… la fonction carré
… une hyperbole	$h(x) = \frac{1}{3}x + \frac{1}{2}$	… la fonction inverse
… d'un autre type	$k(x) = x^2$	… une autre fonction
	$l(x) = \frac{1}{x}$	
	$m(x) = \sqrt{x}$	

Exercice 2 : Graphes probabilistes



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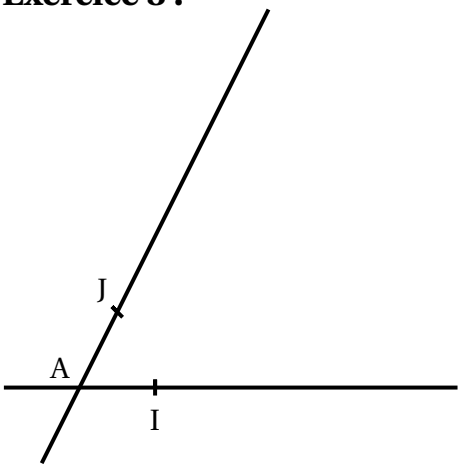


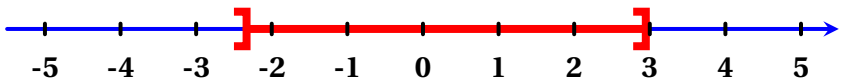
Exercice 4 :

x	$-\infty$		0		2		$+\infty$
Signe de $3x$		$-$	0	$+$			
Signe de $x-2$			$-$		0	$+$	
Signe de $3x(x-2)$		$+$	0	$-$	0	$+$	

x	$-\infty$		0		2		$+\infty$
Signe de $3x$		$-$	0	$+$			
Signe de $x-2$			$-$		0	$+$	
Signe de $3x(x-2)$		$+$	0	$-$	0	$+$	
Variations de f	$+\infty$	↘	$-\frac{1}{2}$	↗	$\frac{17}{128}$	↘	$-\infty$

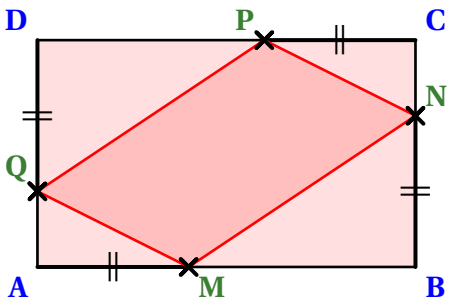
★★★★★★★★★★★★★★★

Exercice 5 :



Exercice 6 :

Segments définis avec les lettres



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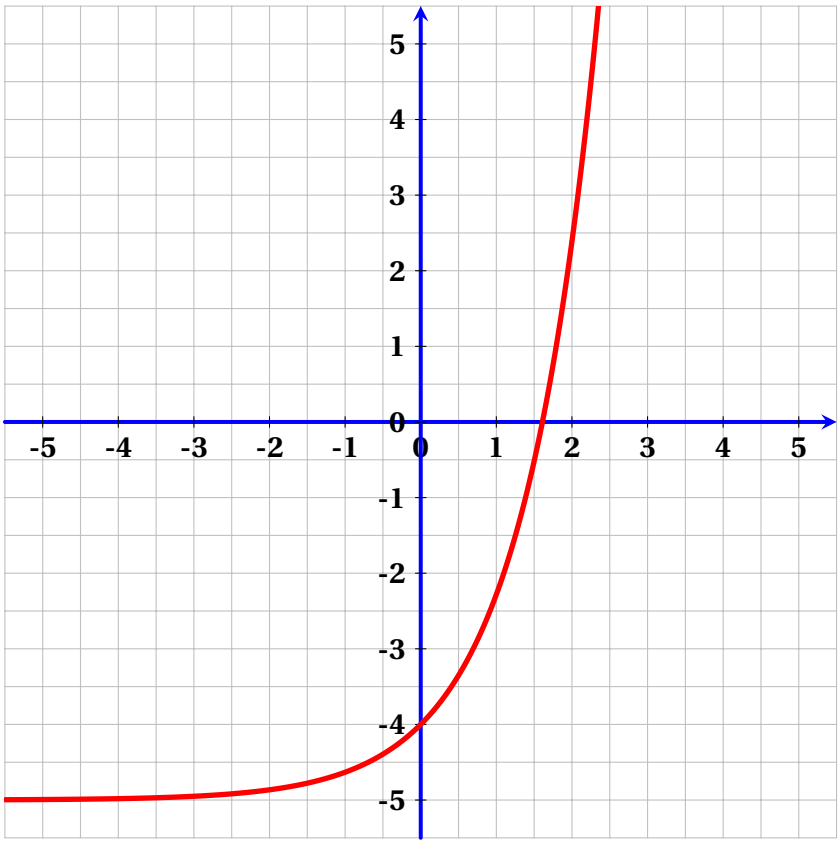

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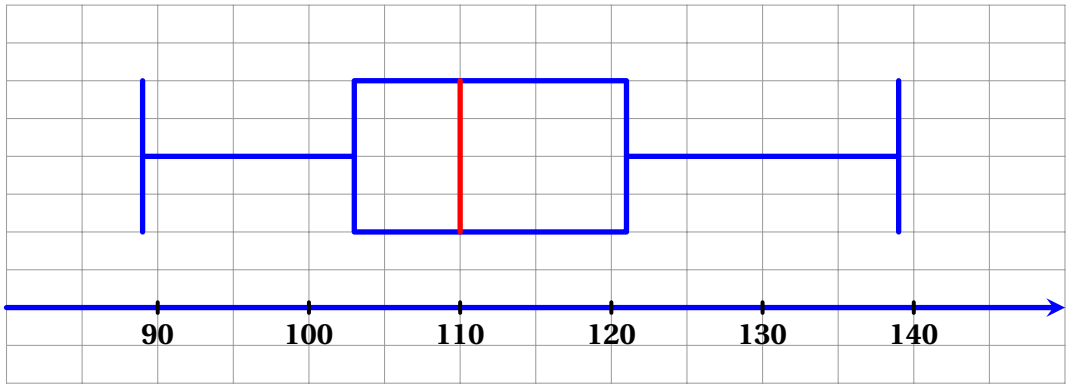

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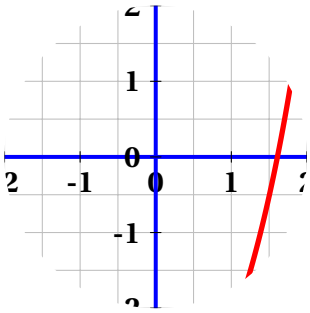

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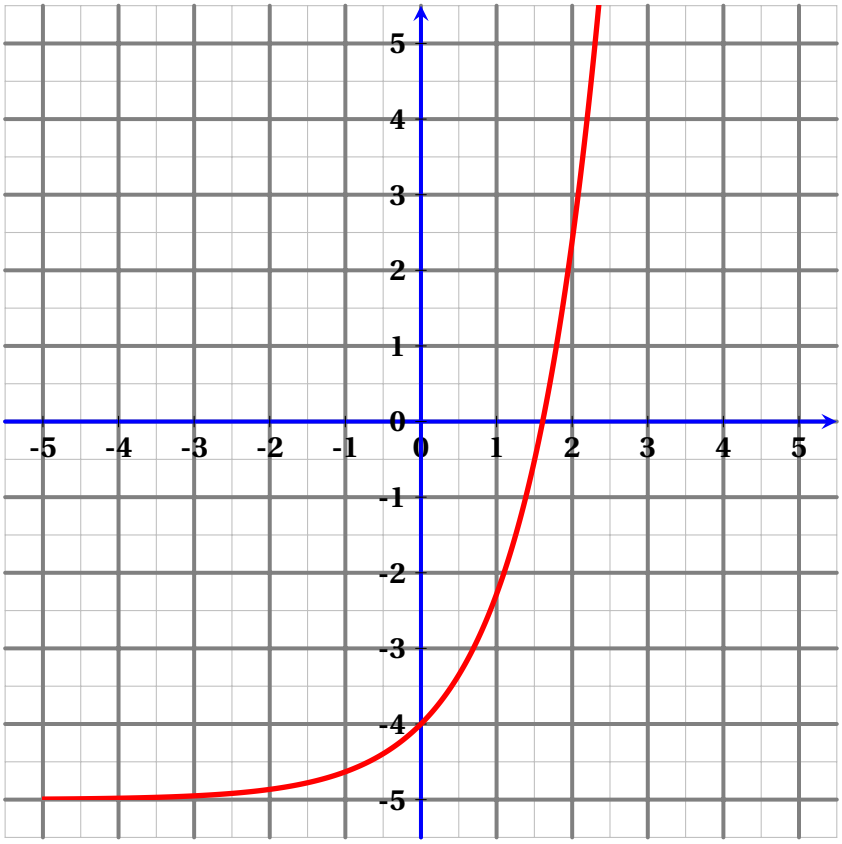

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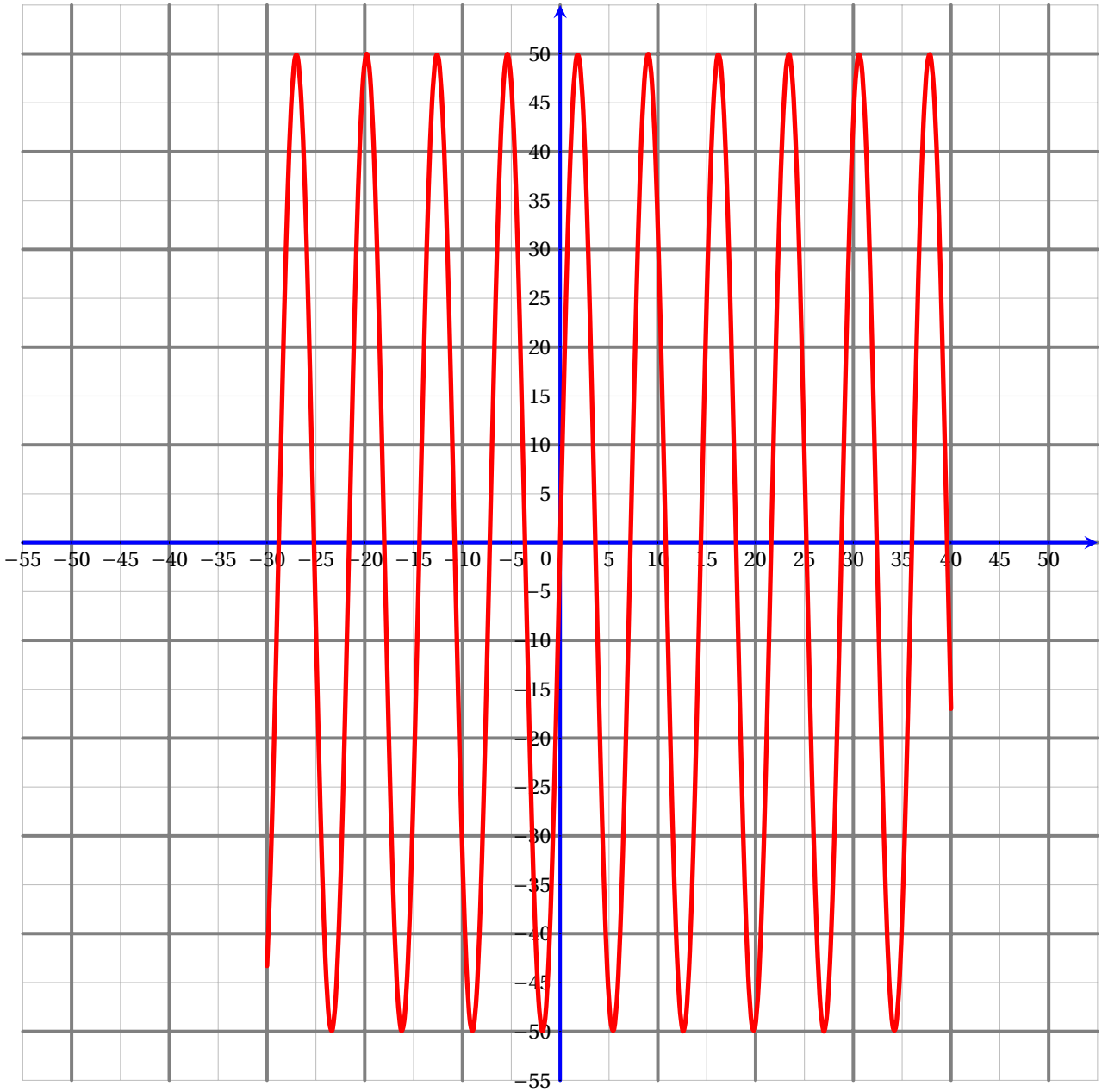
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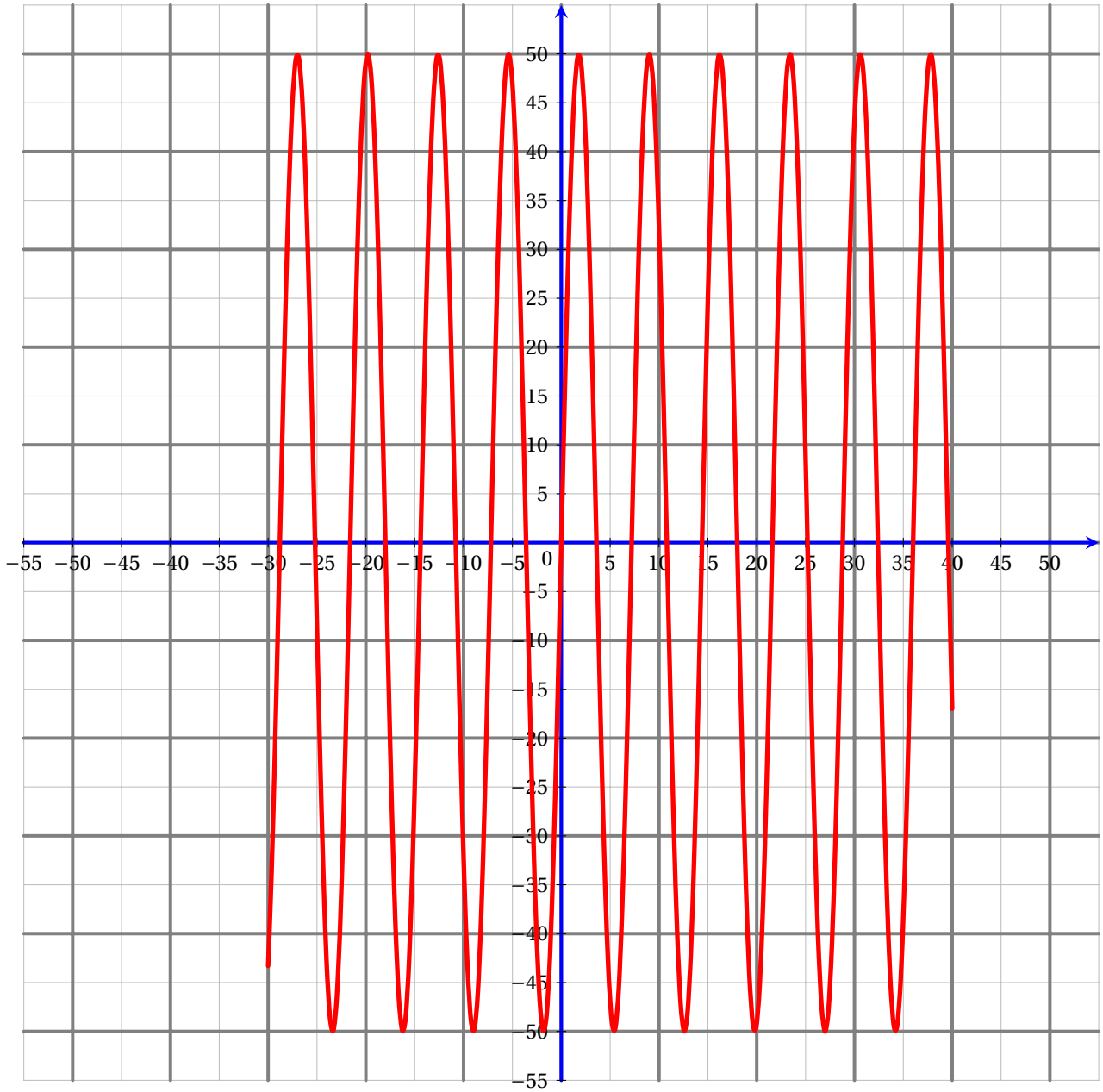
Exercice 12 :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−55 −50 −45 −40 −35 −30 −25 −20 −15 −10 −5 0 5 10 15 20 25 30 35 40 45 50
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−20
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−30
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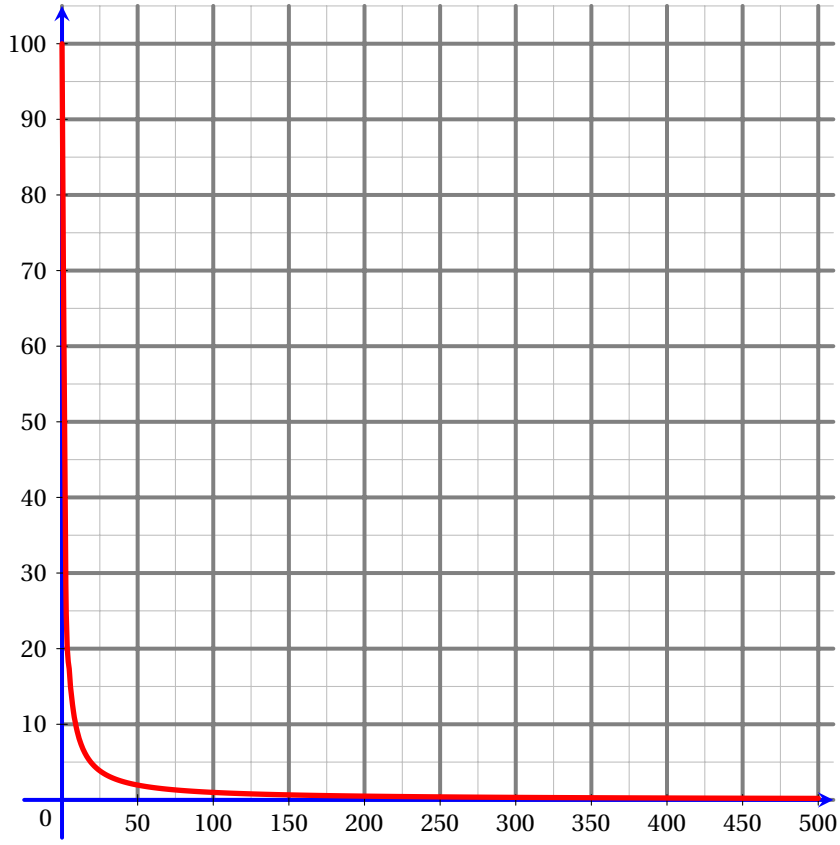
−50
−55

Exercice 13 :



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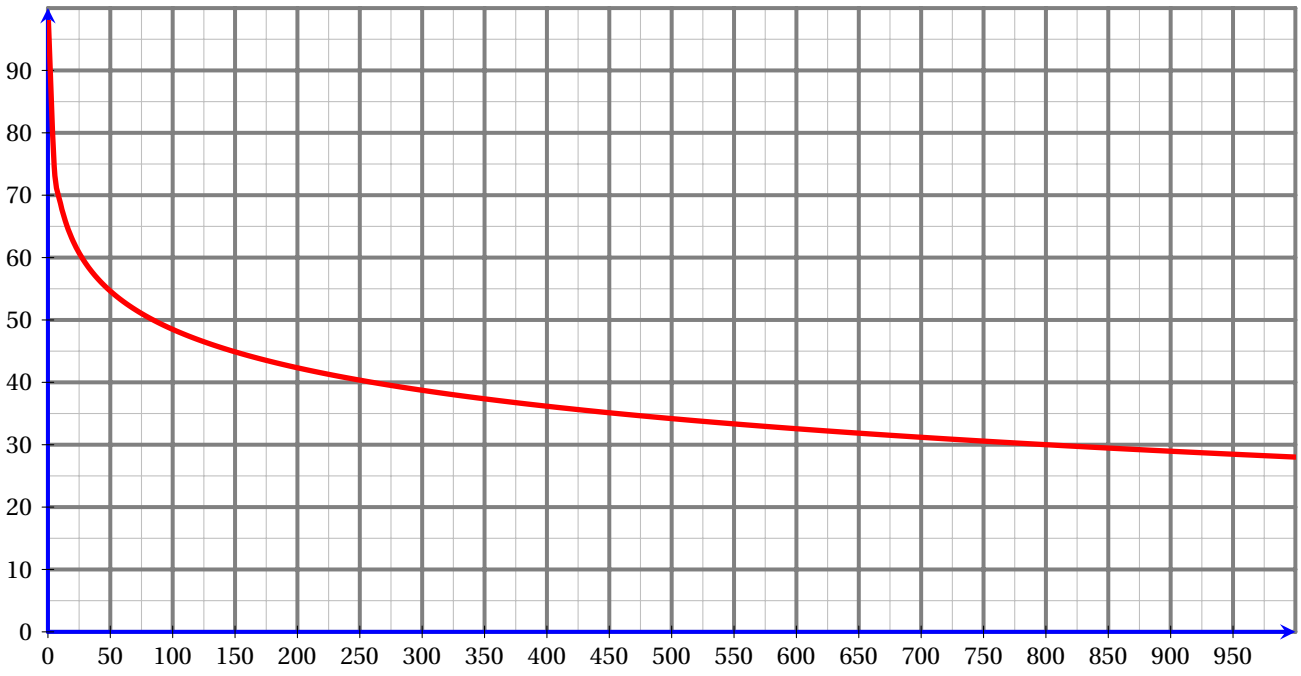

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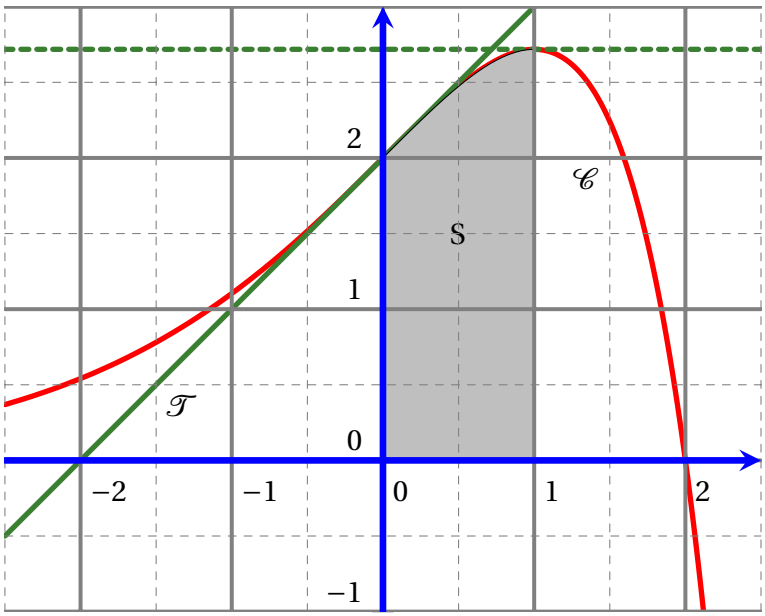
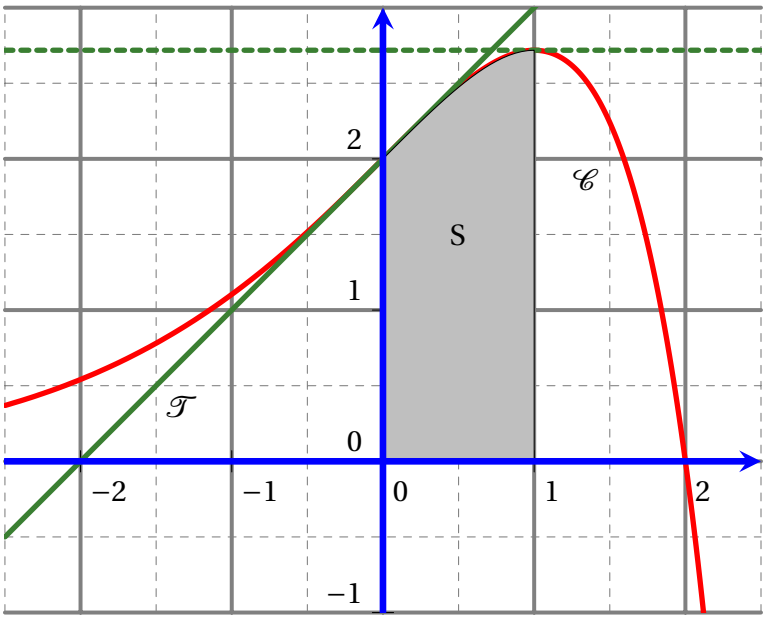


Exercice 16 :

L'ordre des instructions est important pour le rendu souhaité!!



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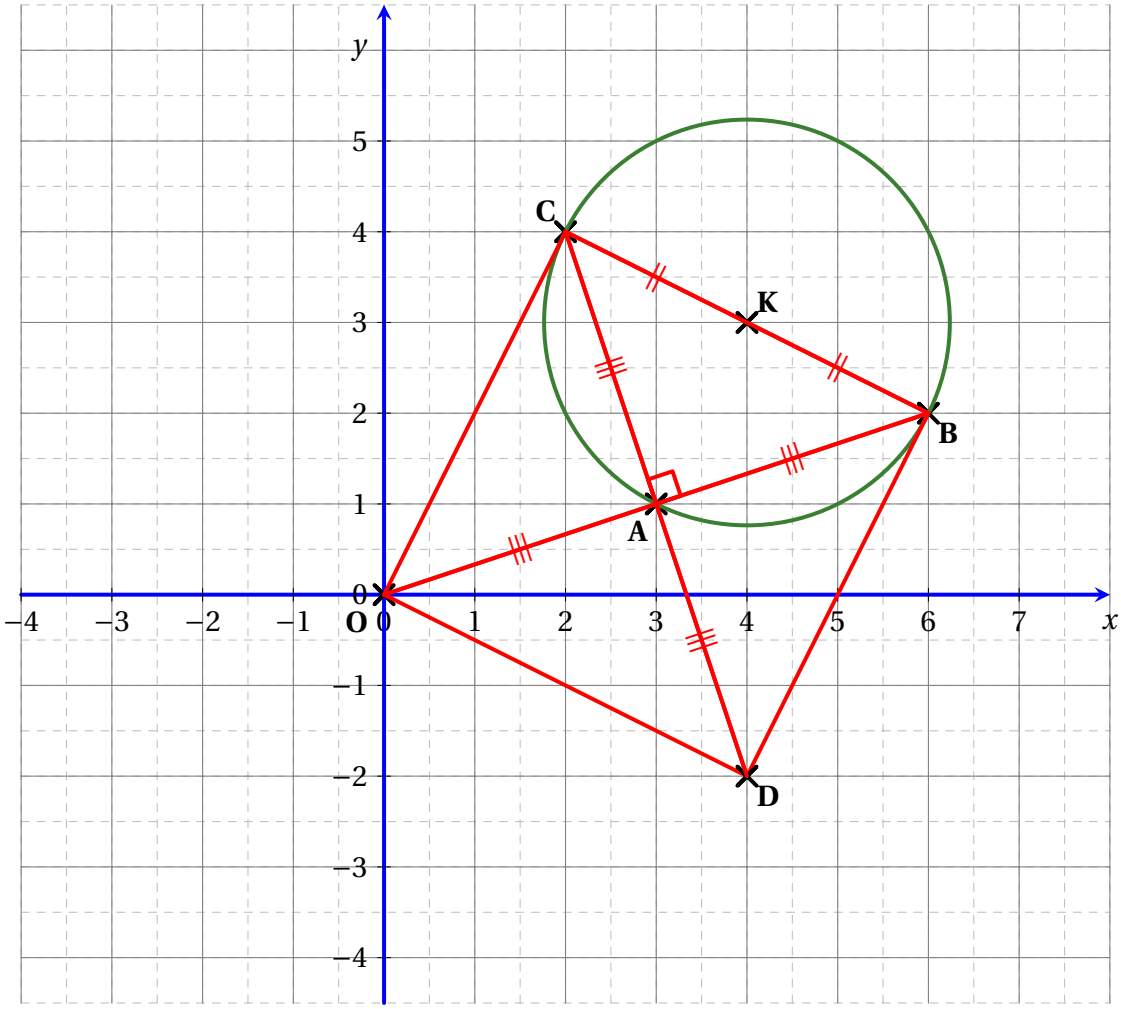

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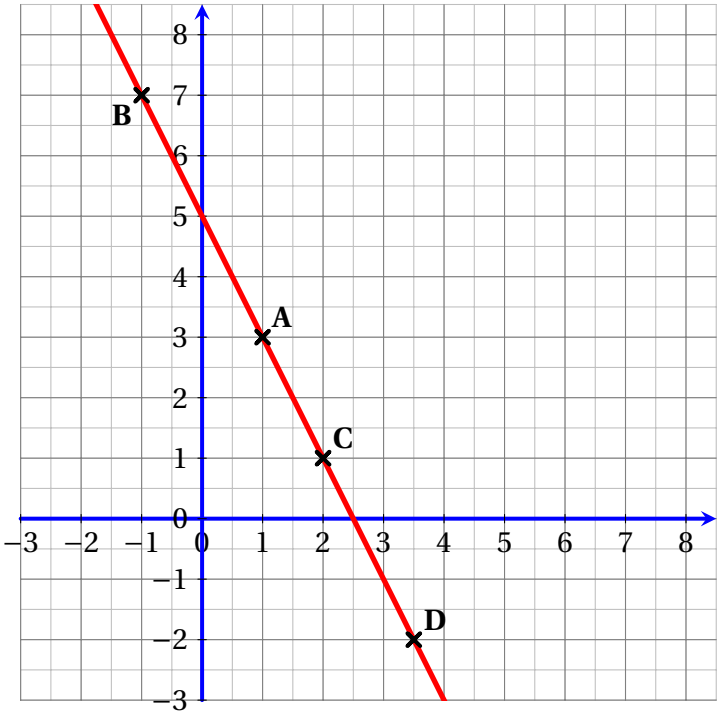

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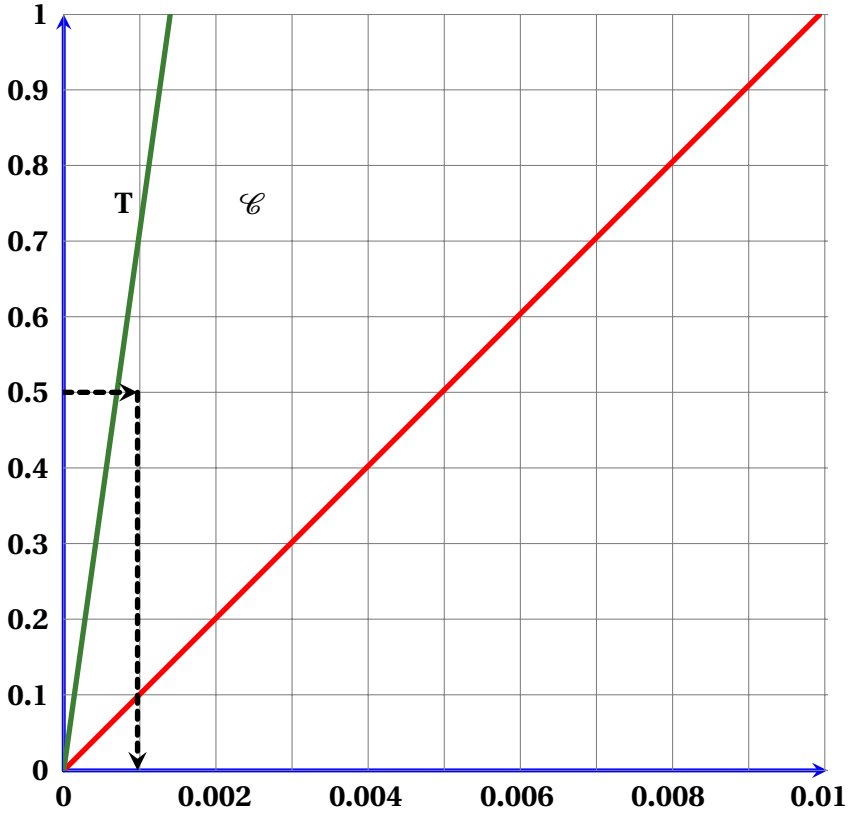

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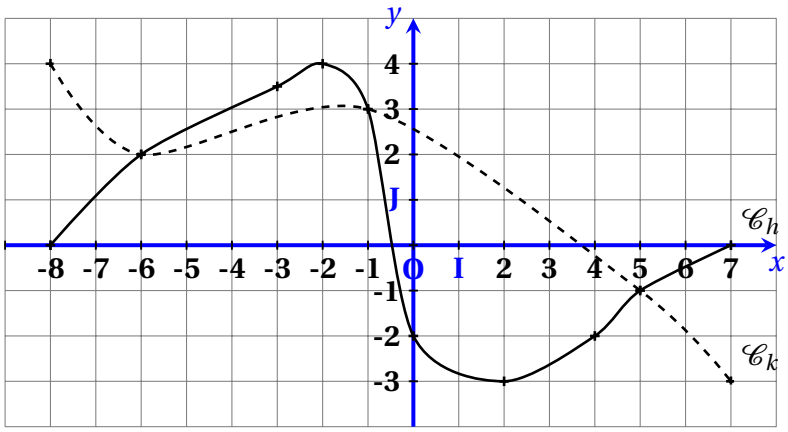

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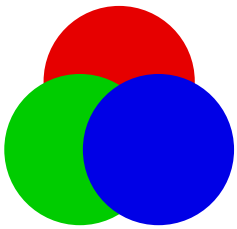

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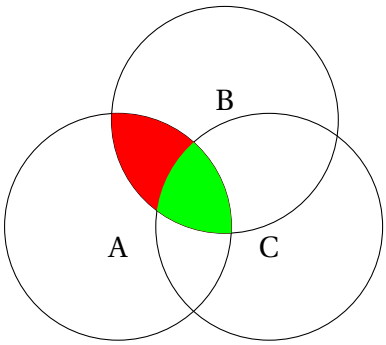
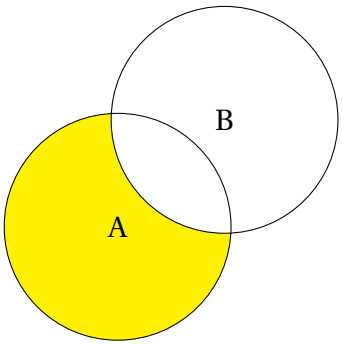
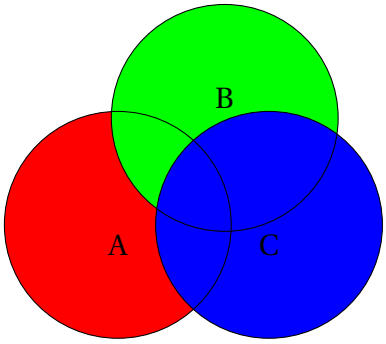
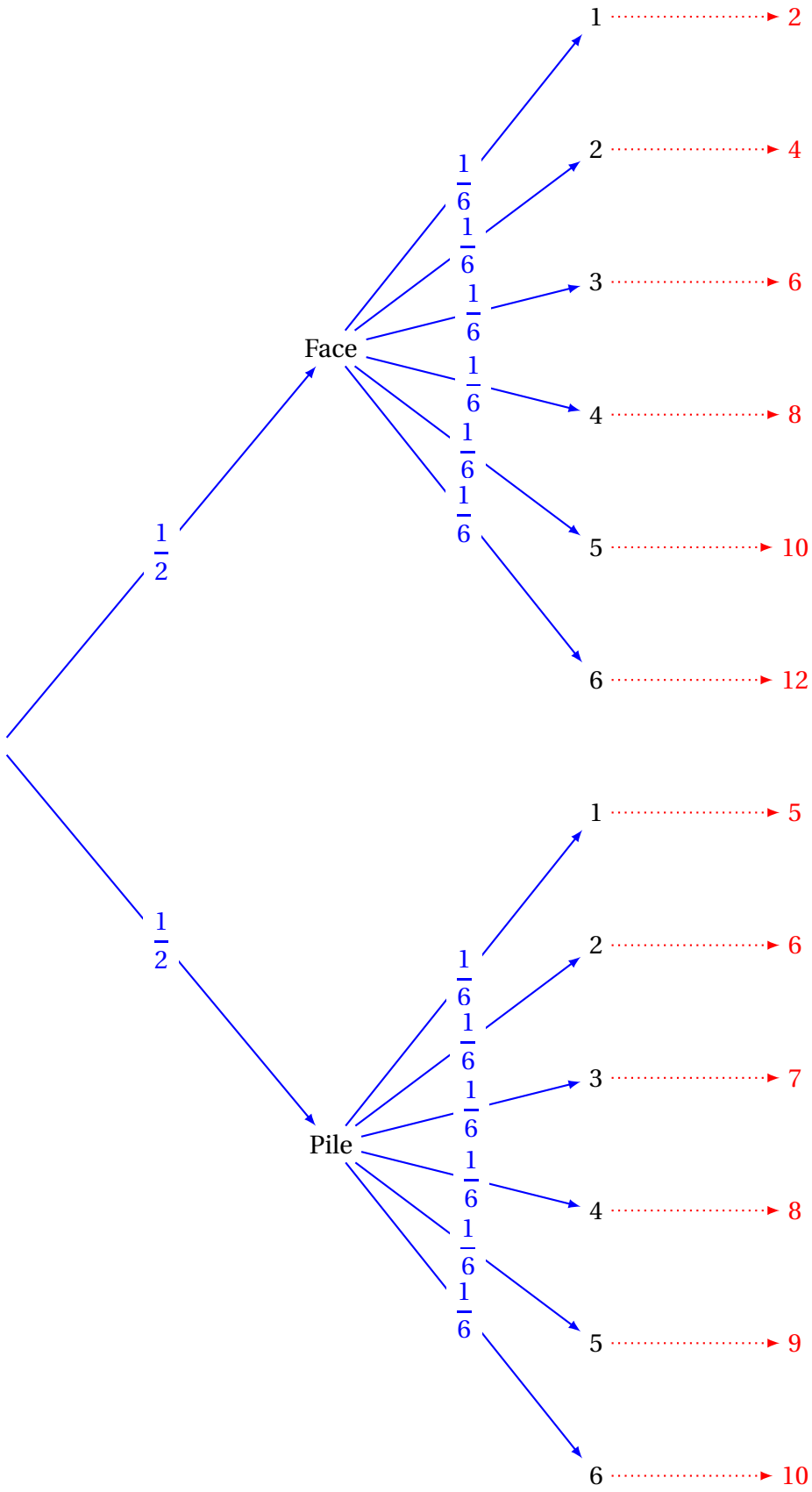






Exercice 23 : **Arbre probabiliste**


Face
Pile
1
2
3
4
5
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$\frac{1}{2}$
$\frac{1}{6}$
2
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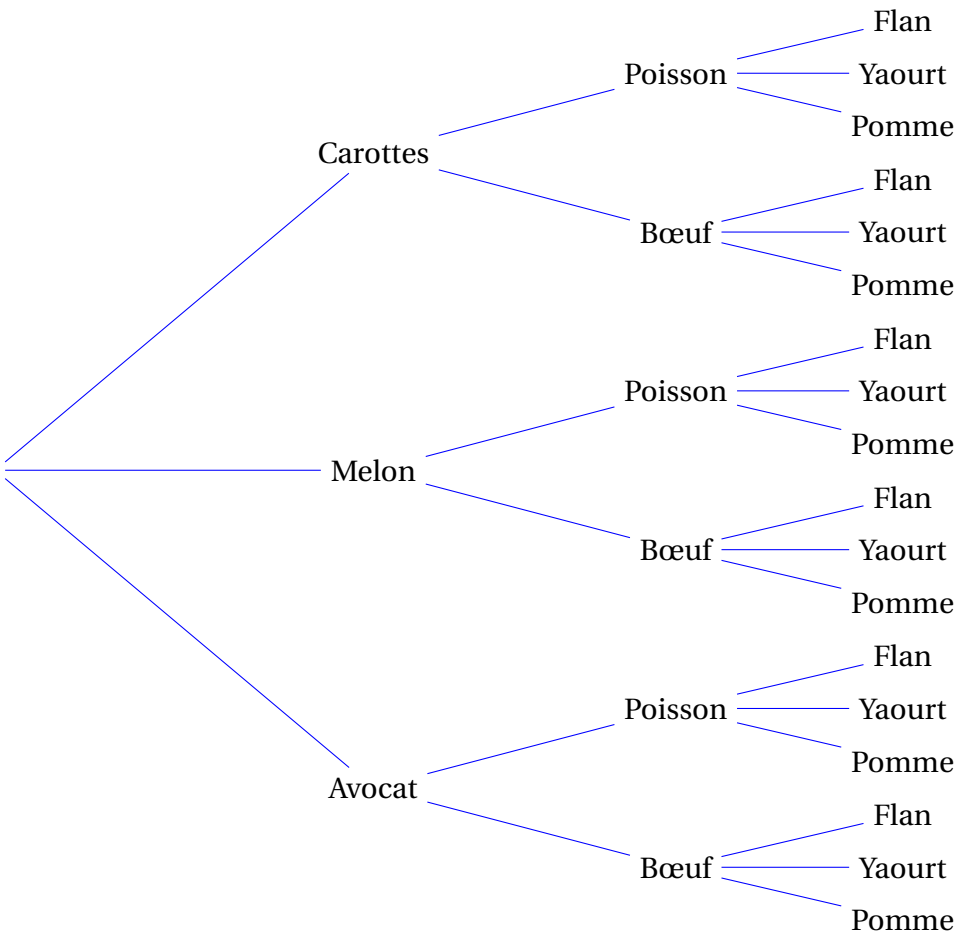
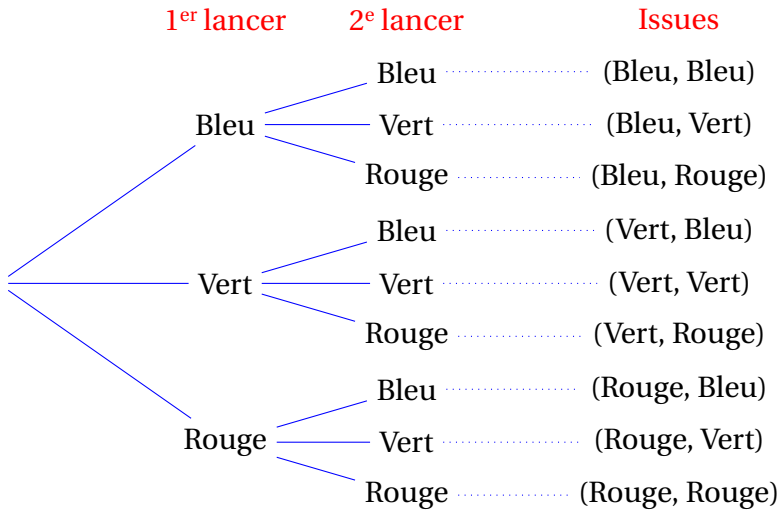
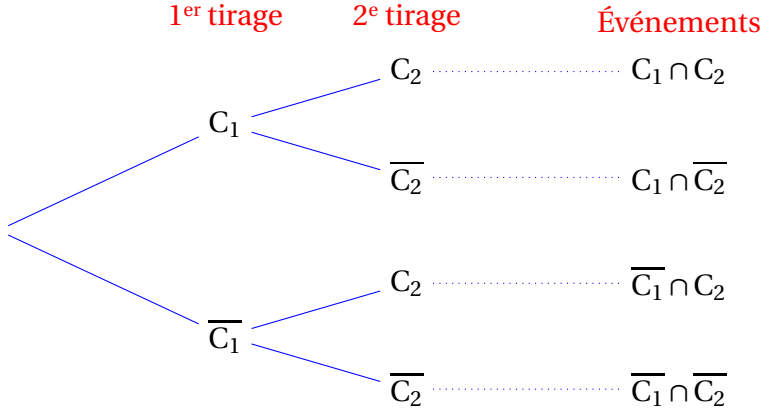
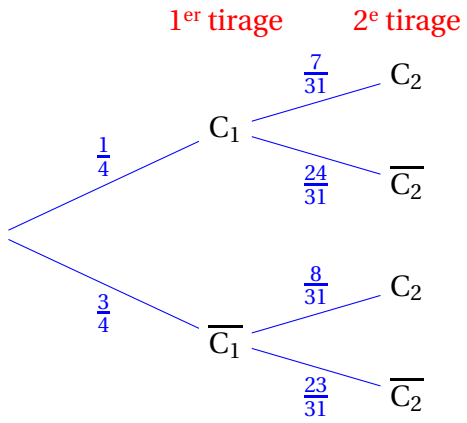
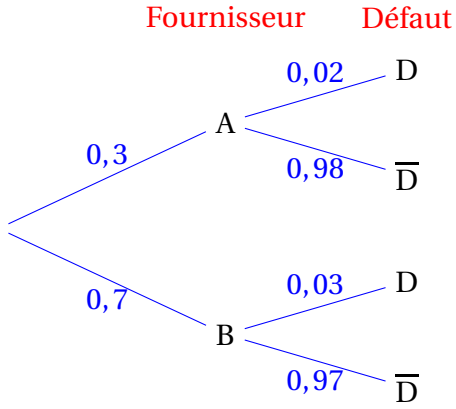
10

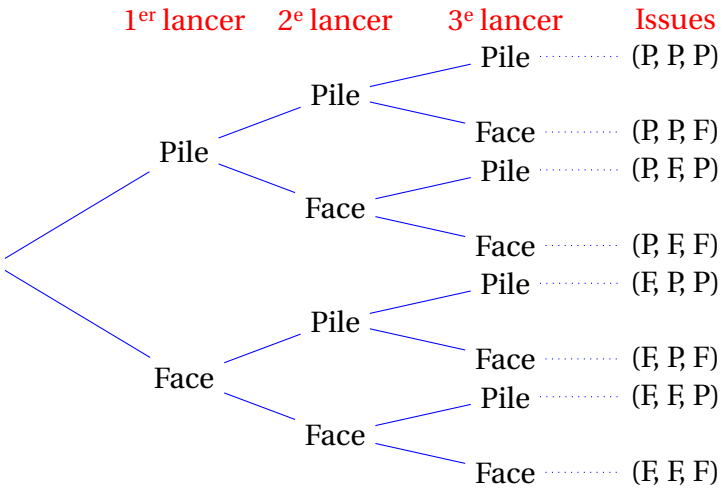

Carottes
Melon
Avocat
Poisson
Bœuf
Flan
Yaourt
Pomme


1er lancer
2e lancer
Issues
Bleu
Vert
Rouge
(Bleu, Bleu)
(Bleu, Vert)
(Bleu, Rouge)
(Vert, Bleu)
(Vert, Vert)
(Vert, Rouge)
(Rouge, Bleu)
(Rouge, Vert)
(Rouge, Rouge)


1er tirage
2e tirage
Événements
C1
C2
C1 ∩ C2
C1 ∩ C2
C1 ∩ C2
C1 ∩ C2


1er tirage
2e tirage
$\frac{1}{4}$
$\frac{3}{4}$
C1
$\overline{C_1}$
$\frac{7}{31}$
$\frac{24}{31}$
$\frac{8}{31}$
$\frac{23}{31}$
C2
$\overline{C_2}$
C2
$\overline{C_2}$


Fournisseur
Défaut
0,3
0,7
A
B
0,02
0,98
0,03
0,97
D
$\overline{D}$
D
$\overline{D}$


1er lancer
2e lancer
3e lancer
Issues
Pile
Face
Pile
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Pile
Face
Pile
Face
(P, P, P)
(P, P, F)
(P, F, P)
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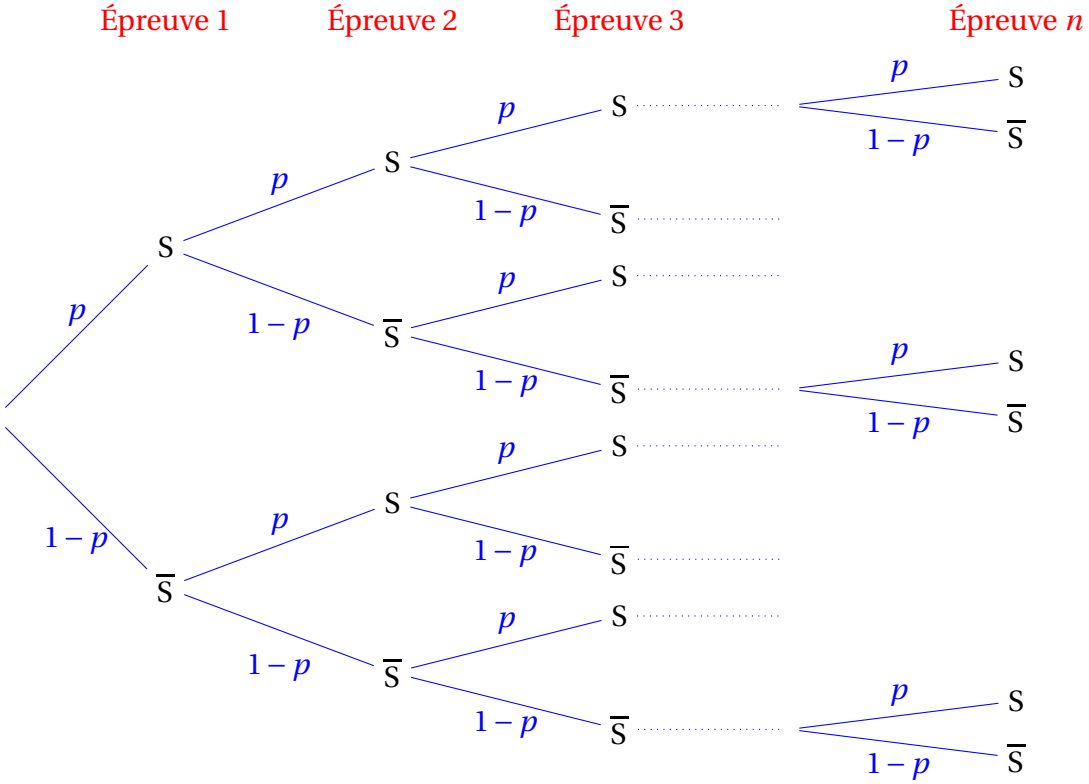

Épreuve 1
Épreuve 2
Épreuve 3
Épreuve n
p
$1-p$
S
$\overline{\text{S}}$

Exercice 24 :

REMARQUES SUR LE DEVOIR MAISON N°2

Exercice 25 :

REMARQUES SUR LE DEVOIR MAISON N°2

Exercice 26 :

REMARQUES SUR LE DEVOIR MAISON N°2

Exercice 27 :

Exercice 28 :

Exercice 29 :

Exercice 30 :

Exercice 31 :

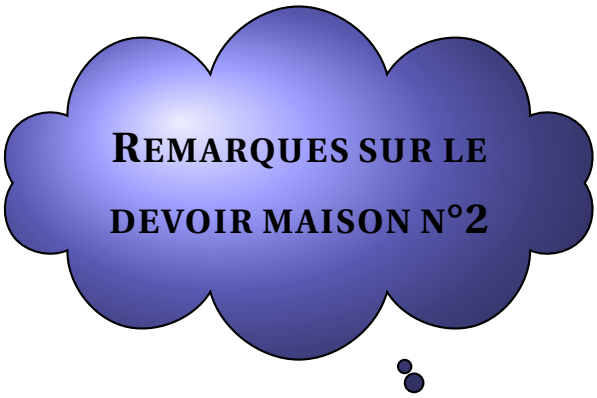
Exercice 32 :

Exercice 33 :

Exercice 34 :

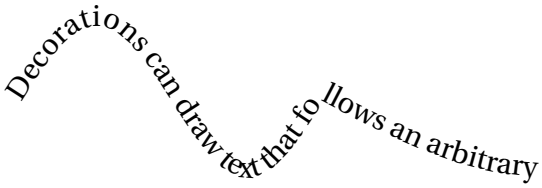
Exercice 35 :

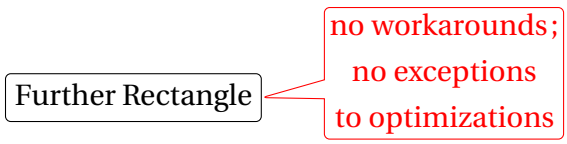
Exercice 36 :



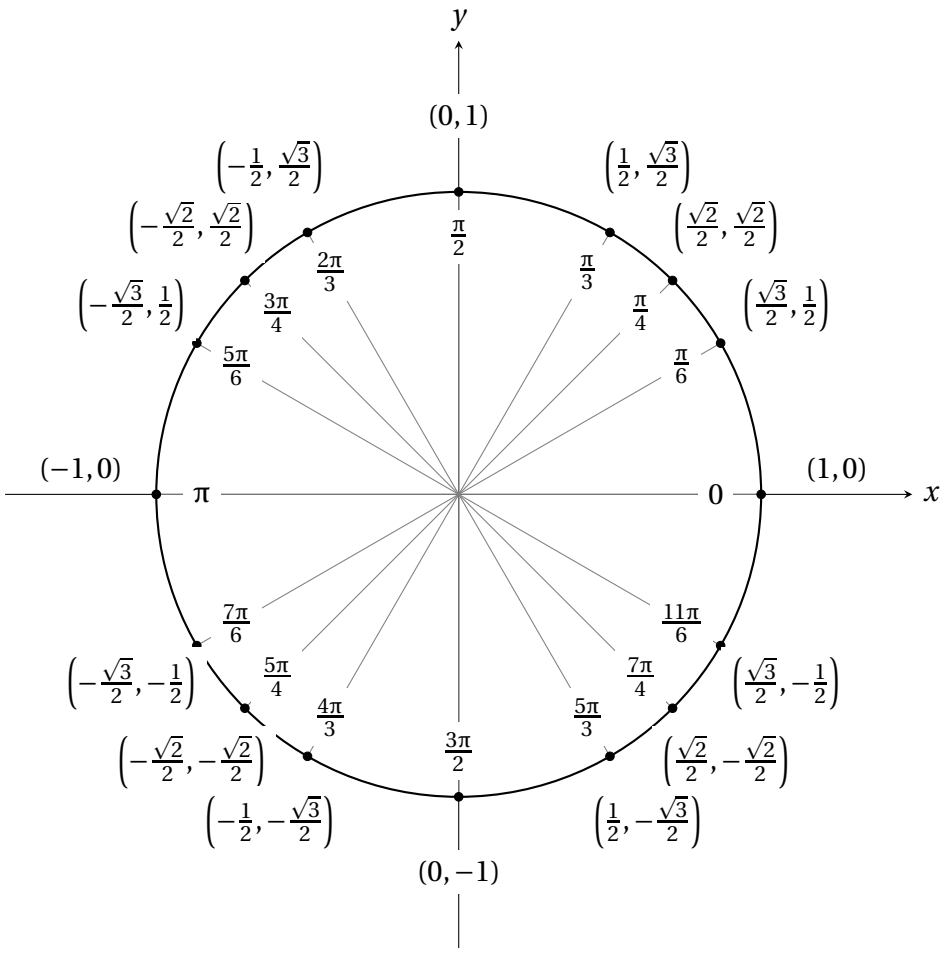
Exercice 37 :

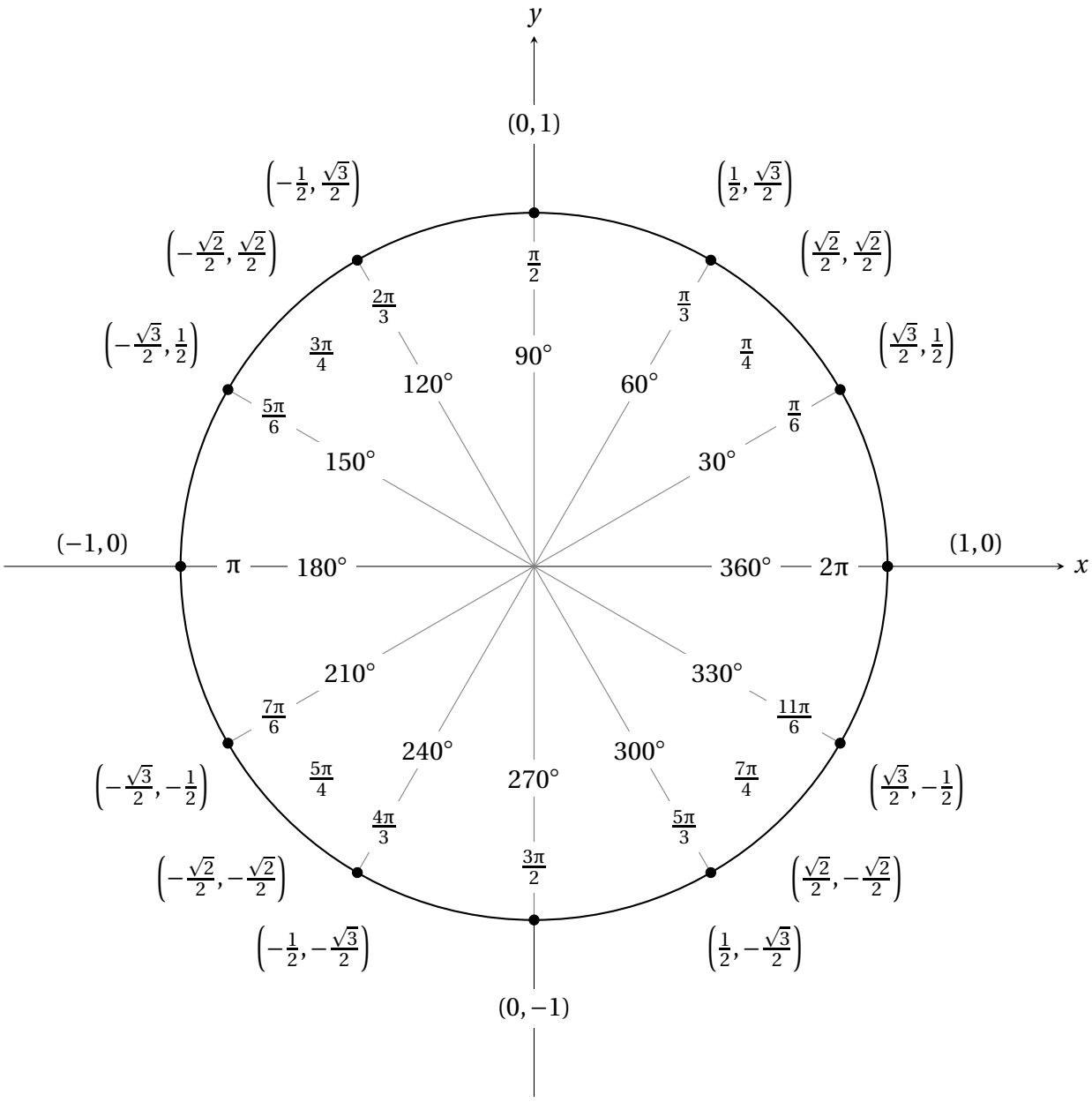
Exercice 38 :

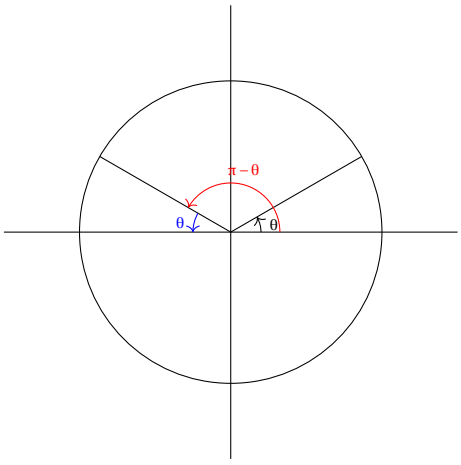




Exercice 39 :


y
$(0,1)$
$\left(-\frac{1}{2},\frac{\sqrt{3}}{2}\right)$
$\left(\frac{1}{2},\frac{\sqrt{3}}{2}\right)$
$\left(-\frac{\sqrt{2}}{2},\frac{\sqrt{2}}{2}\right)$
$\left(\frac{\sqrt{2}}{2},\frac{\sqrt{2}}{2}\right)$
$\left(-\frac{\sqrt{3}}{2},\frac{1}{2}\right)$
$\left(\frac{\sqrt{3}}{2},\frac{1}{2}\right)$
$\frac{\pi}{2}$
$\frac{2\pi}{3}$
$\frac{\pi}{3}$
$\frac{3\pi}{4}$
$\frac{\pi}{4}$
$\frac{5\pi}{6}$
$\frac{\pi}{6}$
$(-1,0)$
π
0
$(1,0)$
x
$\frac{7\pi}{6}$
$\frac{11\pi}{6}$
$\left(-\frac{\sqrt{3}}{2},-\frac{1}{2}\right)$
$\left(\frac{\sqrt{3}}{2},-\frac{1}{2}\right)$
$\frac{5\pi}{4}$
$\frac{7\pi}{4}$
$\frac{4\pi}{3}$
$\frac{5\pi}{3}$
$\left(-\frac{\sqrt{2}}{2},-\frac{\sqrt{2}}{2}\right)$
$\left(\frac{\sqrt{2}}{2},-\frac{\sqrt{2}}{2}\right)$
$\frac{3\pi}{2}$
$\left(-\frac{1}{2},-\frac{\sqrt{3}}{2}\right)$
$\left(\frac{1}{2},-\frac{\sqrt{3}}{2}\right)$
$(0,-1)$


y
(0,1)
$\left(-\frac{1}{2},\frac{\sqrt{3}}{2}\right)$
$\left(\frac{1}{2},\frac{\sqrt{3}}{2}\right)$
$\left(-\frac{\sqrt{2}}{2},\frac{\sqrt{2}}{2}\right)$
$\left(\frac{\sqrt{2}}{2},\frac{\sqrt{2}}{2}\right)$
$\left(-\frac{\sqrt{3}}{2},\frac{1}{2}\right)$
$\left(\frac{\sqrt{3}}{2},\frac{1}{2}\right)$
$\frac{\pi}{2}$
$\frac{2\pi}{3}$
$\frac{\pi}{3}$
$\frac{3\pi}{4}$
$\frac{\pi}{4}$
90°
120°
60°
$\frac{5\pi}{6}$
$\frac{\pi}{6}$
150°
30°
(−1,0)
π
180°
360°
2π
(1,0)
x
210°
330°
$\frac{7\pi}{6}$
$\frac{11\pi}{6}$
240°
300°
$\left(-\frac{\sqrt{3}}{2},-\frac{1}{2}\right)$
$\frac{5\pi}{4}$
270°
$\frac{7\pi}{4}$
$\left(\frac{\sqrt{3}}{2},-\frac{1}{2}\right)$
$\frac{4\pi}{3}$
$\frac{5\pi}{3}$
$\left(-\frac{\sqrt{2}}{2},-\frac{\sqrt{2}}{2}\right)$
$\frac{3\pi}{2}$
$\left(\frac{\sqrt{2}}{2},-\frac{\sqrt{2}}{2}\right)$
$\left(-\frac{1}{2},-\frac{\sqrt{3}}{2}\right)$
$\left(\frac{1}{2},-\frac{\sqrt{3}}{2}\right)$
(0,−1)


π − θ
θ
θ