

Exercice n° 1

```
temps = 12.872
distance = 32.5
vitesse = distance/temps
print("vitesse =", vitesse)
## affichage formate :
# affiche 20 traits
print("{}".format("-"*20))
# arrondi a 2 chiffres
print("\n vitesse = {:.2f} m/s".format(vitesse))
```

Exercice n° 2

```
nom = input("Nom ? ")
age = input("age ? ")
age = float(age)
print("\t Nom :", nom, "\t Age :", age)
## bonnes pratiques :
nom = input("Nom ? ")
age = int(input("age ? "))
print("{}\n\t Nom : {}\t Age : {}".format("-"*40, nom, age))
```

Exercice n° 3

```
# import
from math import sqrt
# programme principal
x = float(input("x ? "))
if x >= 0:
    y = sqrt(x)
    print("La racine de {:.2f} est {:.3f}".format(x, y))
else:
    print("On ne peut pas prendre la racine d'un reel negatf !")
    print("\nAu revoir")
```

Exercice n° 4

```
print("Donnez deux valeurs entieres :")
x = int(input("n1 = "))
y = int(input("n2 = "))
# ecriture classique :
if x < y:
    plus_petit = x
else:
    plus_petit = y

# ecriture compacte :
plus_petit = x if x < y else y
print("\nLa plus petite des deux est", plus_petit)
print("\nAu revoir")
```

Exercice n° 5

```
# programme principal -----
p_seuil, v_seuil = 2.3, 7.41
print("Seuil pression :", p_seuil, "\tSeuil volume ;", v_seuil, "\n")
pression = float(input("Pression courante = "))
volume = float(input("Volume courant = "))
if (pression > p_seuil) and (volume > v_seuil):
    print("\t pression ET volume eleves. Stoppez !")
elif pression > p_seuil:
    print("\t Il faut augmenter le volume")
elif volume > v_seuil:
    print("\t Vous pouvez diminuer le volume")
else:
    print("\t Tout va bien !")
```

Exercice n° 6

```
a, b = 0, 10
```

```
while a < b:
```

```
    print(a, end=" ")
```

```
    a = a + 1
```

```
print("\n\nAutre exemple :\n")
```

```
while b: # signifie : tant que b est vrai (i-e b non nul)
```

```
    b = b - 1
```

```
    if b % 2 != 0:
```

```
        print(b, end=" ")
```

```
print()
```

Exercice n° 7

```
n = int(input("Entrez un entier [1 .. 10] : "))
```

```
while not(1 <= n <= 10):
```

```
    n = int(input("Entrez un entier [1 .. 10], S.V.P. : "))
```

```
print("\nValeur saisie :", n)
```

Exercice n° 8

```
print(" Exemple 1 ".center(40, '-'))
```

```
for lettre in "afib":
```

```
    print(lettre)
```

```
print()
```

```
print(" Exemple 2 ".center(40, '-'), "\n")
```

```
for i in [20000, 'lieu sous', 2, 'mers']:
```

```
    print(i, end=" ")
```

```
print("\n\n{:-^40}".format(" idem avec format "))
```

Exercice n° 9

```
print("\n"+" <range> dans un <for> ".center(40, '-'), "\n")
for i in range(0, 15, 3):
    print(i, end=" ")
print()
```

Exercice n° 10

```
for i in range(1, 11):
    if i == 5:
        break
    print(i, end=" ")
print()
```

Exercice n° 11

```
for i in range(1, 11):
    if i == 5:
        continue
    print(i, end=" ")
print()
```

Exercice n° 12

```
from math import sin
# programme principal -----
for x in range(-3, 4): # -3 -2 -1 0 1 2 3
    try:
        print("{:.3f}".format(sin(x)/x), end=" ")
    except:
        print("{:.3f}".format(float(1)), end=" ")
print()
```

Exercice n° 13

```
# procedure
def table(base, debut, fin, inc):
    """Affiche la table des <base>, de <debut> a <fin>, de <inc> en
    <inc>."""
    n = debut
    while n <= fin:
        print(n, 'x', base, '=', n*base)
        n = n + inc
# programme principal -----
table(7, 2, 13, 2)
```

Exercice n° 14

```
# import
from math import pi
# fonctions
def cube(x):
    """Calcule le cube de l'argument."""
    return x**3
def volumeSphere(r):
    """Calcule le volume d'une sphere de rayon <r>."""
    return 4 * pi * cube(r) / 3
# programme principal -----
rayon = float(input("Rayon : "))
print("\nVolume de la sphere de rayon {:.1f} : {:.3f}"
      .format(rayon, volumeSphere(rayon)))
```

Exercice n° 15

fonction

```
def somme(*args):
```

```
    resultat = 0
```

```
    for nombre in args:
```

```
        resultat += nombre
```

```
    return resultat
```

programme principal -----

```
print("-"*40)
```

```
print(somme(23))
```

```
print("\n", "-"*40)
```

```
print(somme(-10, 13))
```

```
print("\n", "-"*40)
```

```
print(somme(23, 42, 13))
```

```
print("\n", "-"*40)
```

```
print(somme(-10.0, 12))
```

```
print("\n", "-"*40)
```

```
print(somme(20, 452, -3, 897))
```

Exercice n° 16

fonction

```
def somme(a, b, c):
```

```
    return a+b+c
```

programme principal -----

```
sequence = (2, 4, 6)
```

```
print(somme(*sequence))
```

Exercice n° 17

fonction

```
def unDictionnaire(**kargs):
```

```
    return kargs
```

programme principal -----

```
print(" appel avec des parametres nommes ".center(60, '-'))
```

```
print(unDictionnaire(a=23, b=42))
```

```
print(" appel avec un dictionnaire decompressé ".center(60, '-'))
```

```
mots = {'d':85, 'e':14, 'f':9}
```

```
print(unDictionnaire(**mots))
```

```
print(unDictionnaire(g="Michel", h="Blache"))
```