



Question 9 Qu'affiche ce programme ?

```
x = 13
z = -8
y = z + 21

a = x == y
b = x == y - z
c = x > True > z

if a and b and c:
    if x - y != False:
        print("banana")
    else:
        print("ananas")
elif a or b or c:
    if x - y:
        print("penguin")
    else:
        print("unicorn")
else:
    print("pizza")
```

☐ unicorn

☐ banana

☐ ananas

☐ penguin

☐ pizza

**Question 10** Qu'affiche ce programme ?

```
numbers = [3, 6, 9, 12, 15]
result = 0

for i, v in enumerate(numbers):
    if i % 2 == 0:
        result += v
    elif i % 3 == 0:
        result -= v

print(result)
```

☐ 9☐ 3☐ 12☐ 15☐ -9**Question 11** Qu'affiche ce programme ?

```
matrix = [[i+2 * j for j in range(4)] for i in range(4)]
print(matrix)
```

☐ [[0, 2, 4, 6], [0, 3, 6, 9], [0, 4, 8, 12], [0, 5, 10, 15]]☐ [[0, 1, 2, 3], [2, 3, 4, 5], [4, 5, 6, 7], [6, 7, 8, 9]]☐ [[0, 0, 0, 0], [2, 3, 4, 5], [4, 6, 8, 10], [6, 9, 12, 15]]☐ [[0, 2, 4, 6], [1, 3, 5, 7], [2, 4, 6, 8], [3, 5, 7, 9]]☐ [[3, 5, 7, 9], [4, 6, 8, 10], [5, 7, 9, 11], [6, 8, 10, 12]]**Question 12** Qu'affiche ce programme ?

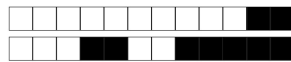
```
matrix = [[1, 0, 3, 4], [5, 6, 0, 8], [9, 10, 11, 0], [0, 14, 15, 16]]
result = 0
i = 0

while i < len(matrix):
    if i:
        for j in range(len(matrix[i])):
            if matrix[i][j] == 0:
                result += matrix[j][i]
            i += 1
        i += 1
    print(result)
```

☐ 34☐ 29☐ Ce programme n'affiche rien car la boucle while ne se termine jamais.☐ 20☐ 14**Question 13** Sachant que la fonction intégrée sum de Python calcule la somme des éléments d'une liste donnée, que va afficher ce programme ? Exemple : `sum([1, 0, -5]) = -4`.

```
a = [i // 2 for i in range(1, 13, 3)]
b = [i * 2 for i in a]
a.extend(b)
result = sum(a)
for i, v in enumerate(b):
    result += v + b[i]
print(result)
```

☐ 70☐ 77.0☐ 50☐ 112.0☐ 112



Question 14 Sachant que les fonctions Python intégrées `min` et `max` trouvent respectivement la valeur minimale et maximale parmi les valeurs fournies, quelle est la valeur de la variable `result` à la fin de l'exécution de ce code ? Exemples : `min(1, -4, 9.2, -1) = -4`; `max(0, 3.3, -1, 6) = 6`.

```
x = c if (c > b) else b
x = a if (a > b and a > c) else x
y = min(-a, -b)
result = min(y, -c)
result -= x
```

- ☐ `min(a, b, c) - max(-a, -b, -c)`
- ☐ `min(-a, -b, -c) - min(-a, -b, -c)`
- ☐ `max(a, b, c) - min(-a, -b, -c)`
- ☐ `max(a, b, c) + min(a, b, c)`
- ☐ `2*min(-a, -b, -c)`

Question 15 Sachant que la fonction intégrée `sum` de Python calcule la somme des éléments d'une liste donnée, que va afficher ce programme ? Exemple : `sum([1, 0, -5]) = -4`.

```
numbers = [0, 1, 2, 3, 4, 5, 6]
a = [x*x**2 for x in numbers]
b = [x and numbers[0] for x in numbers]
a.extend(b[-2:])
print(sum(a[1::3]), a[-1])
```

- ☐ 65 False ☐ 65 0 ☐ 257 False ☐ 257 0 ☐ 65 216

Question 16 Sachant que `break` et `continue` affectent la boucle la plus proche, que va afficher ce programme ?

```
count = 0
for i in range(3):
    for j in range(3):
        if i == 1 and j == 0:
            count += 1
            break
        if i == j:
            continue
        count += 1
print(count)
```

- ☐ 5 ☐ 10 ☐ 4 ☐ 7 ☐ 3