

Рег.Номер: 288

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Баллы: 102

Вариант№: 1

Задание1 (5/5 баллов)

```
from math import ceil
dt, tp, v, q, t = map(int, input().split())
count_cars = ceil(q / v)
if count_cars == 0:
    if t <= dt:
        print('YES', 1)
    else:
        print('NO', 1)
else:
    if dt * count_cars + tp * (count_cars - 1) >= t:
        print('YES', count_cars)
    else:
        print('NO', count_cars)
```

Задание2 (6/10 баллов)

```
def get_sum(x):
    t = x
    res = 0
    while t > 0:
        res += t % 10
        t //= 10
```

```
        return res
a, b = map(int, input().split())
count = 0
for i in range(a, b + 1):
    if get_sum(i) % 2 == 1:
        count += 1
print(count)
```

Задание3 (15/15 баллов)

```
m, n, x = map(int, input().split())
count = 0
for i in range(m, n + 1):
    num = oct(i)
    if len(num) - 2 >= x:
        count += 1
print(count)
```

Задание4 (6/15 баллов)

```
a, b = map(int, input().split())
max_value = 0
for i in range(a, b + 1):
    if bin(i).count('1') % 2 == 1:
        max_value = max(max_value, (i << 2) + 1)
print(max_value)
```

Задание5 (20/25 баллов)

```
dp = [1, 4]
n = int(input())
for i in range(2, n + 1):
    dp.append((dp[i - 1] - dp[i - 2]) * 4 + dp[i - 2] * 2)
print(dp[n])
```

Задание6 (20/30 баллов)

```
from math import factorial
s = input()
max_fac = len(s)
sum_fac = (1 + max_fac) * max_fac // 2
res = factorial(sum_fac)
for i in range(2, max_fac + 1):
    res //= factorial(i)
print(res, res * sum_fac)
```

Задание7 (30/30 баллов)

```
a = list(map(int, input().split()))
n = a[0]
max_r = 0
max_n = 0
i = 1
count = 0
while i <= n * 3:
```

```
    r1, r2, r3 = a[i], a[i + 1], a[i + 2]
    i += 3
    count += 1
    r = (r1 + r2) * r3 / (r1 + r2 + r3)
    if r > max_r:
        max_r = r
        max_n = count
print(max_n)
```