

CODES 0-2:

```
p = [int(x) for x in open('17_file_0.txt')]
count = 0; mx = float('-inf')
for a,b,c in zip(p, p[1:], p[2:]):
    mx_n = max(a,b,c)
    if mx_n**2 == (a+b+c-mx_n)**2 - 2*a*b*c/mx_n:
        count += 1
    mx = max(mx, a*b*c*0.5/mx_n)
print(count, mx)
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p = [int(x) for x in open('17_file_1.txt')]
c = 0; mx = float('-inf')
mx19 = max(x for x in p if x%19==0)
for a,b in zip(p, p[1:]):
    if (int(a%2)+int(b%2))==1 and (a>mx19 or b>mx19):
        c+=1
    mx=max(mx,a+b)
print(c, mx)
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def isPal(x):
    s = str(x); f = True
    for i in range((len(s)+1)//2):
        if s[i] != s[len(s)-i-1]:
            f = False
            break
    return f

p = [int(x) for x in open('17_file_2.txt')]; l = []
count = 0
mx18 = max(x for x in p if isPal(x) and x%18==0)

for a,b,c in zip(p, p[1:], p[2:]):
    if (b-a) == (c-b) and (int(a<mx18)+int(b<mx18)+int(c<mx18)) == 2:
        count += 1
        l += [a+b+c]
l.sort()
if len(l)%2==0:
    print(count, ( l[len(l)//2] + l[len(l)//2-1] ) / 2)
else:
    print(count, l[len(l)//2])

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