#include

int main()

{

long long n, mod, d[2], b[2], x, y, i;

scanf("%lld%lld", &n, &mod);

d[0] = 0;

b[0] = 2%mod;

d[1] = 1;

b[1] = 2%mod;

for (i = 2; i < n; i++)

{

x = (d[1]\*b[0]+d[0])%mod;

y = (b[0]\*b[1])%mod;

d[0] = d[1];

d[1] = x;

b[0] = b[1];

b[1] = y;

}

printf("%lld\n", d[1]);

return 0;

}