class EllipticCurve(object):

def init(self, a, b, p):

self.a = a

self.b = b

self.p = p

def eq(self, C):

return (self.a, self.b) == (C.a, C.b)

def has\_point(self, x, y):

return (y \*\* 2) % self.p == (x \*\* 3 + self.a \* x + self.b) % self.p

def str(self):

return 'y^2 = x^3 + {}x + {}'.format(self.a, self.b)