50. All of the following graphs have equal scales on the axes. One of the graphs shows only points for which the y-coordinate is 1 less than the square of the x-coordinate. Which one?
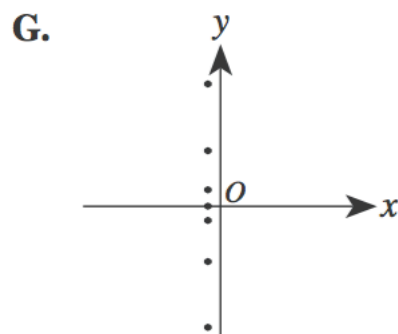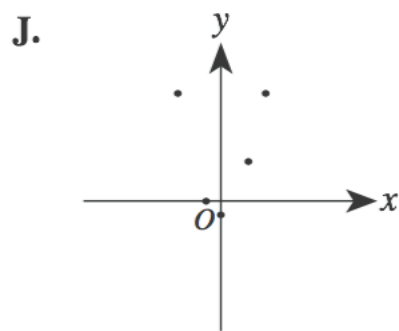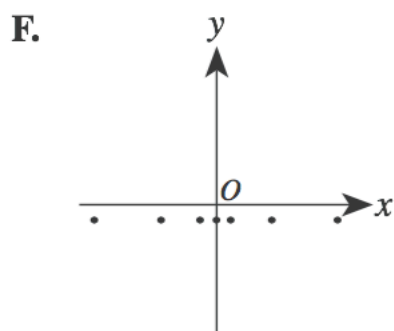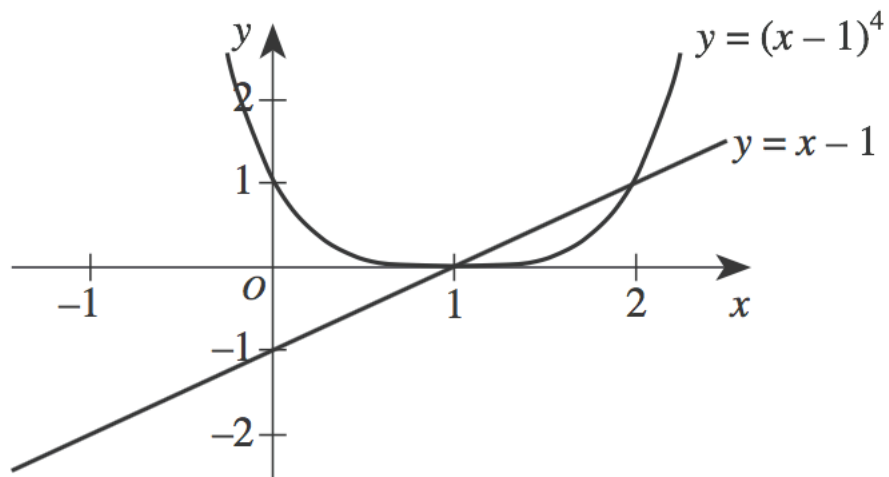
F.

J.

G.

K.

H.
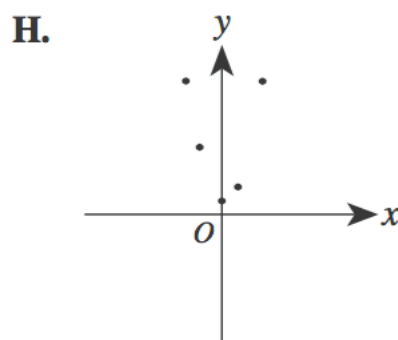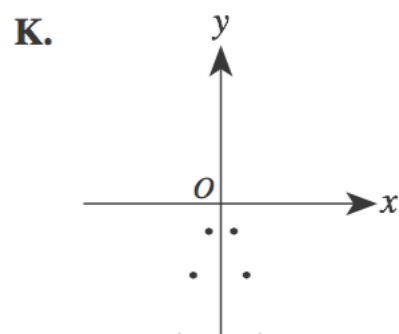
57. The graphs of the equations $y = x - 1$ and $y = (x - 1)^4$ are shown in the standard (x,y) coordinate plane below. What real values of x, if any, satisfy the inequality $(x - 1)^4 < (x - 1)$?

A. No real values
B. $x < 0$ and $x > 1$
C. $x < 1$ and $x > 2$
D. $0 < x < 1$
E. $1 < x < 2$

34. The graph of $y = -5x^2 + 9$ passes through $(1,2a)$ in the standard (x,y) coordinate plane. What is the value of a ?

F.   2
G.   4
H.   7
J.   −1
K.   −8

34. The two parabolas $y = ax^2 + n$ and $y = x^2 + q$ have the same vertex when graphed in the (x,y) coordinate plane. Which of the following *must* be true?
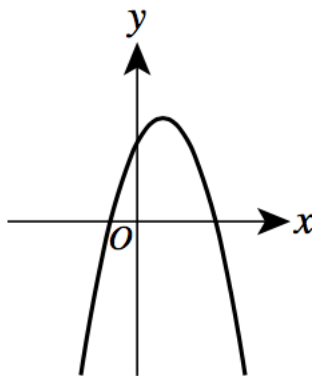
F. $n + q = 0$
G. $nq = a$
H. $nq = 1$
**J.** $a = 1$
K. $n = q$

28. The equation $y = ax^2 + bx + c$ is graphed in the standard (x,y) coordinate plane below for real values of a, b, and c. When $y = 0$, which of the following best describes the solutions for x ?

F. 2 distinct positive real solutions
G. 2 distinct negative real solutions
H. 1 positive real solution and 1 negative real solution
J. 2 real solutions that are not distinct
K. 2 distinct solutions that are not real

56. The graph of the equation $h = -at^2 + bt + c$, which describes how the height, h, of a hit baseball changes over time, t, is shown below.
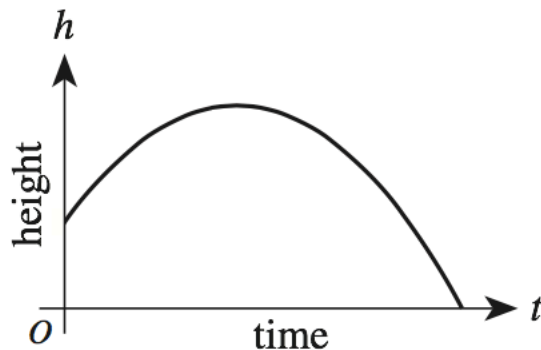
If you alter only this equation's c term, which gives the height at time $t = 0$, the alteration has an effect on which of the following?

    I. The h-intercept
   II. The maximum value of h
  III. The t-intercept

F. I only
G. II only
H. III only
J. I and III only
K. I, II, and III

STOP! DO NOT

D