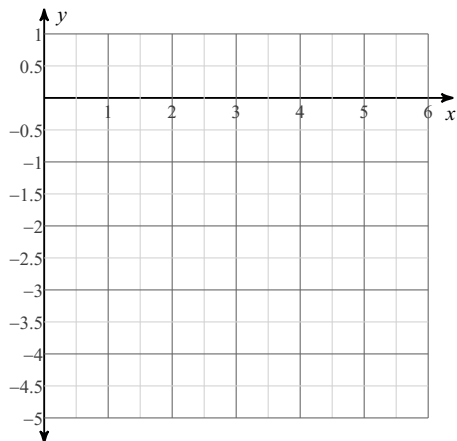
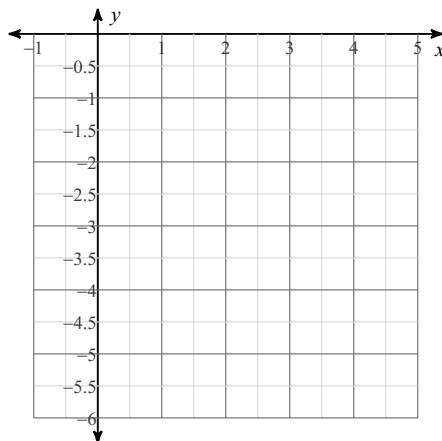


Sketch the graph of each function. Find the zeros.

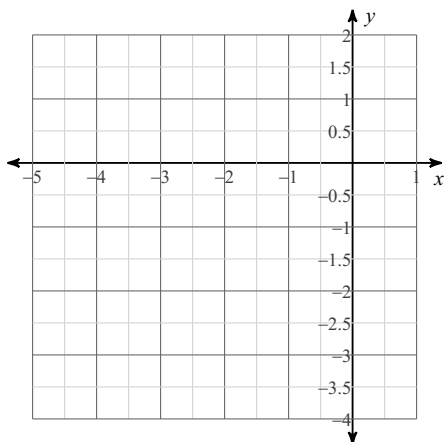
1) $f(x) = x^2 - 6x + 5$



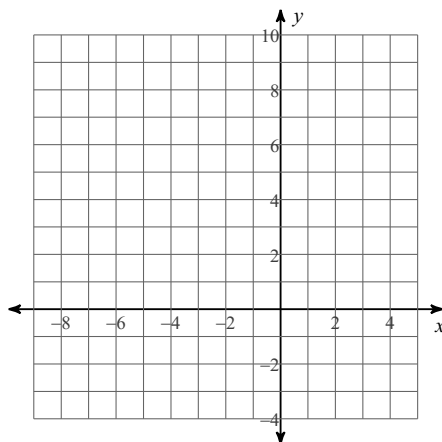
2) $f(x) = -x^2 + 6x - 10$



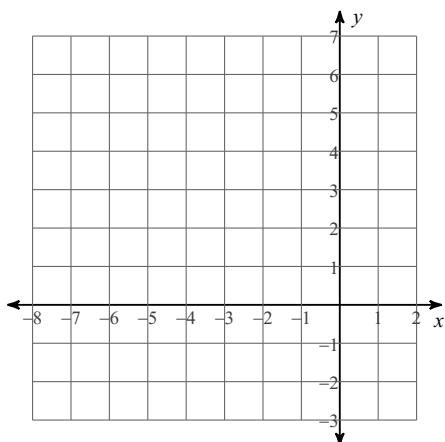
3) $f(x) = -x^2 - 4x - 3$



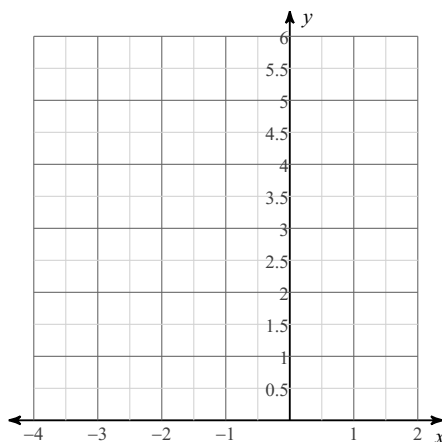
4) $f(x) = 3x^2 + 6x$



5) $f(x) = 2(x + 2)^2 - 2$



6) $f(x) = (x + 1)^2 + 1$



Write each function in standard form. Determine x-intercepts and zeros of each function

7) $y = (n + 4)(n + 5)$

8) $y = 6(k - 3)(k + 3)$

9) $y = -2(a - 7)(a + 8)$

10) $t = -(a + 1)(a + 6)$

Write a function in factored and standard form for each k and set of x intercepts

11) x intercepts: 1 and -1, k = -2

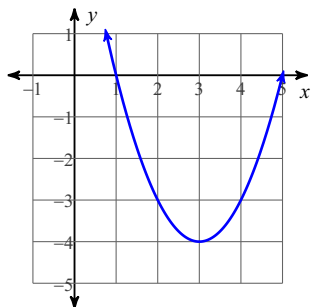
12) x intercepts: 2 and 5, k = 3

13) x intercepts: -5 and 3, k = -1

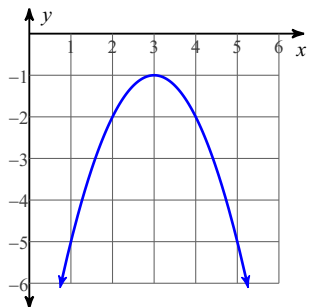
14) x intercepts: 0 and 10, k = 4

Answers to (ID: 1)

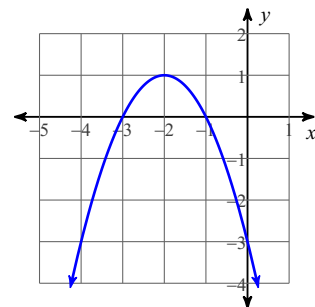
1)



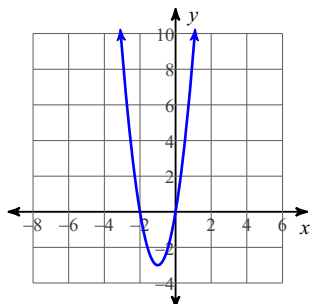
2)



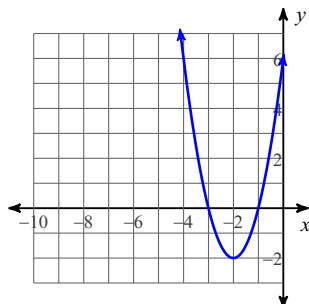
3)



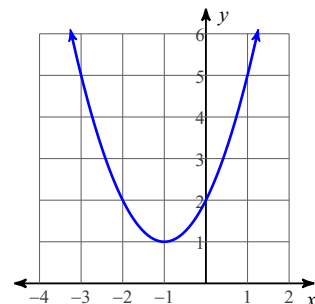
4)



5)



6)



7) $n = -4, -5$

$$n^2 + 9n + 20$$

11) $-2(x-1)(x+1)$

$$-2x^2 + 2$$

8) $k = 3, -3$

$$6k^2 - 54$$

12) $3(x-2)(x-5)$

$$3x^2 - 21x + 30$$

9) $a = 7, -8$

$$-2a^2 - 2a + 112$$

13) $-(x+5)(x-3)$

$$-x^2 - 2x + 15$$

10) $a = -1, -6$

$$-a^2 - 7a - 6$$

14) $4x(x-10)$

$$4x^2 - 40x$$