Algebra 2 - Raad Name:_____

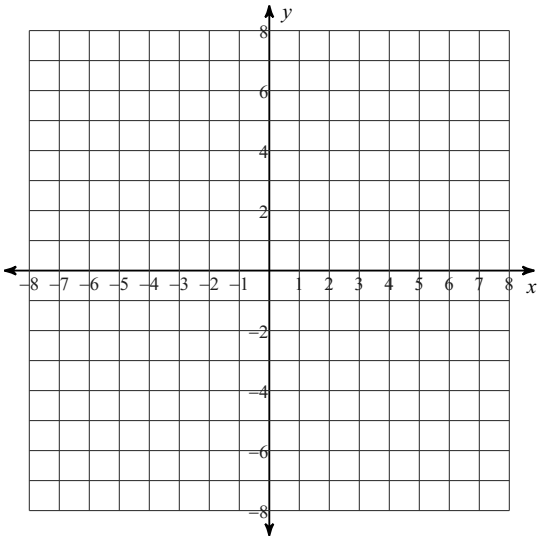
Graphing Polynomials w/ Multiplicities

Date:_____ Hour:____

1) $y = (x-5)^2(x+2)(x+5)^2$

Zeros:

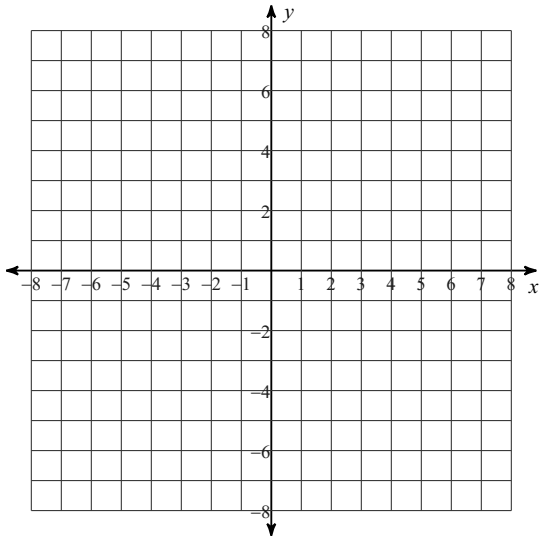
E.B.:



2) $y = (x-2)(x+4)^2(x-5)$

Zeros:

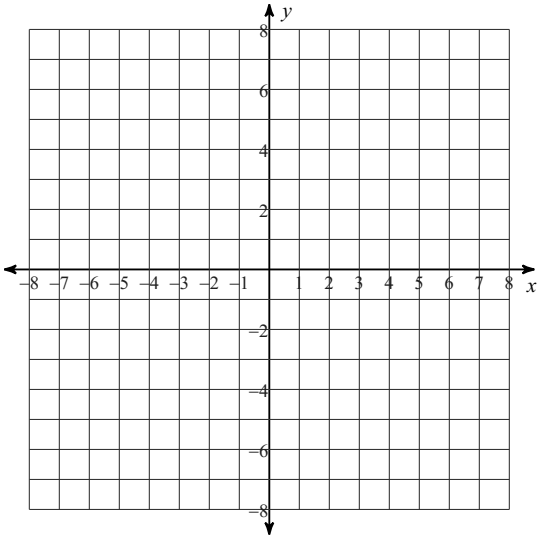
E.B.:



3) $y = -x^2(x-4)(x+2)^3$

Zeros:

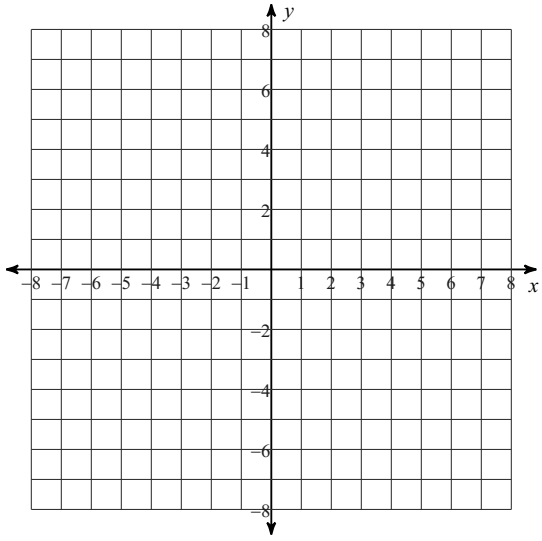
E.B.:



4) $y = -(x+8)^3(x-5)(x+3)$

Zeros:

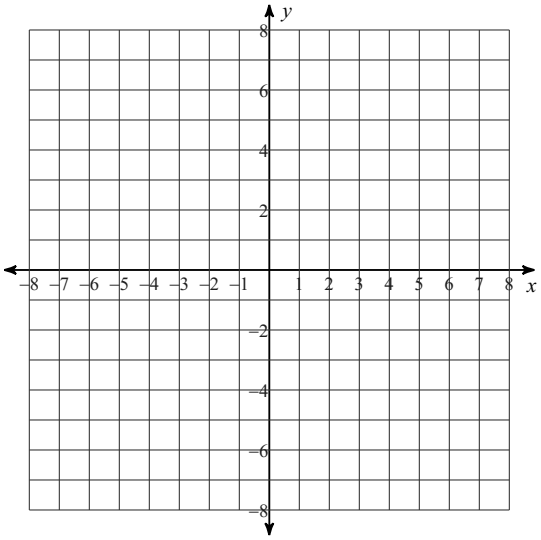
E.B.:



5) $y = -x(x-5)^3(x-2)(x+6)$

Zeros:

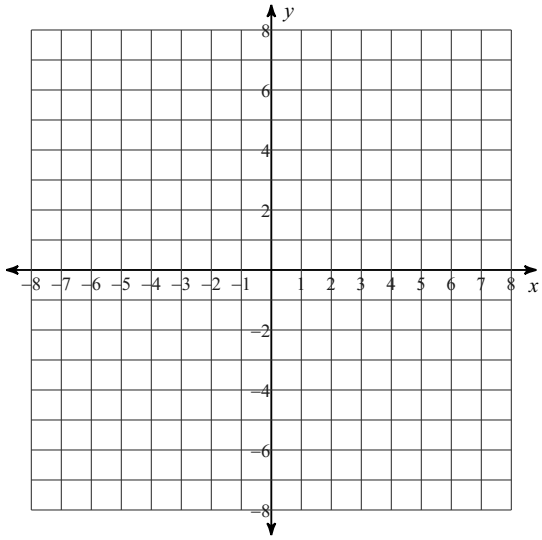
E.B.:



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

Zeros:

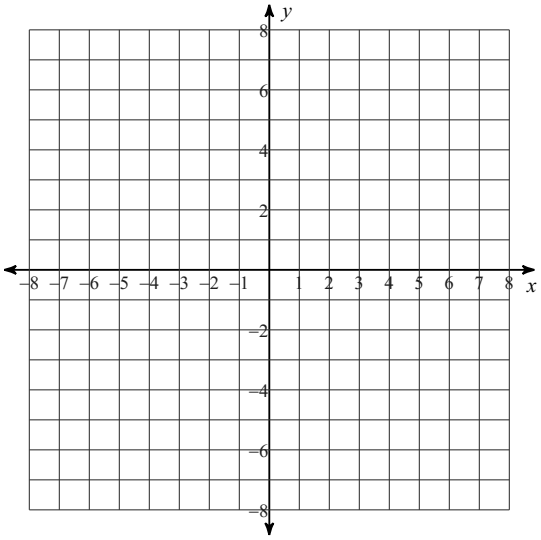
E.B.:



7) $y = (x+6)^2(x+3)(x+2)^3$

Zeros:

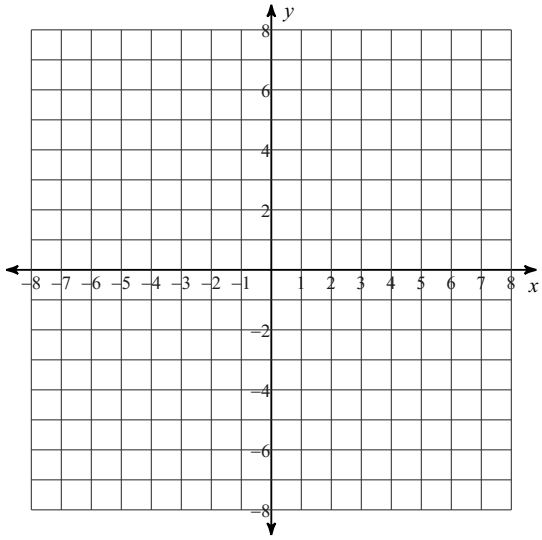
E.B.:



8) $y = (x+4)^2(x-4)$

Zeros:

E.B.:



Answers to Graphing Polynomials w/ Multiplicities

1) Zeros: x = 5 (multi. of 2) , -5 (multi. of 2), -2
   E.B.: +O ; down, up
2) Zeros: x = 2, -4 (multi. of 2), 5
   E.B.: +E ; up, up
3) Zeros: x = 0 (multi. of 2), 4, -2 (multi. of 3)
   E.B.: -E ; down, down
4) Zeros: x = -8 (multi. of 3), 5, -3
   E.B.: -O ; up, down
5) Zeros: x = 0, 5 (multi. of 3), 2, -6
   E.B: -E ; down, down
6) Zeros: x = 1 (multi. of 2), 5, -5 (multi. of 2)
   E.B.: -O ; up, down
7) Zeros: x = -6 (multi. of 2), -3, -2 (multi. of 3)
   E.B: +E ; up, up
8) Zeros: x = -4 (multi. of 2), 4
   E.B.: +O ; down, up