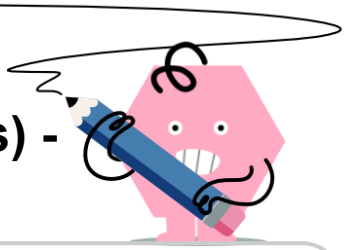
Name

Function Root Behaviour (Polynomials) - Roots and Multiplicity to Function



1

Which function has these roots and multiplicities? $x = 2$ (multiplicity 4), $x = 3$ (multiplicity 4)

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

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

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

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

E $f(x) = (x-1)^4(x-3)^3$

2

Which function has these roots and multiplicities? $x = -1$ (multiplicity 3), $x = 3$ (multiplicity 3)

A $f(x) = (x+1)^3(x-3)^3$

B $f(x) = (x-1)^3(x-3)^3$

C $f(x) = (x+1)^3(x-3)^2$

D $f(x) = (x+3)^3(x-1)^3$

E $f(x) = (x+3)^3(x+1)^3$

3

Which function has these roots and multiplicities? $x = -1$ (multiplicity 2), $x = 0$ (multiplicity 1)

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

B $f(x) = (x+2)^2x$

C $f(x) = x(x-1)^2$

D $f(x) = (x-1)(x-2)$

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

4

Which function has these roots and multiplicities? $x = -1$ (multiplicity 4), $x = 1$ (multiplicity 2)

A $f(x) = (x+1)^4(x-1)^2$

B $f(x) = (x+1)^2(x-1)^4$

C $f(x) = (x+1)^4(x-1)^3$

D $f(x) = (x-2)(x-4)$

E $f(x) = x^4(x-1)^2$

5

Which function has these roots and multiplicities? $x = -1$ (multiplicity 4), $x = 2$ (multiplicity 4)

A $f(x) = (x+1)^4(x-2)^4$

B $f(x) = (x+2)^4(x-1)^4$

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

D $f(x) = (x+2)^4(x+1)^4$

E $f(x) = (x-1)^4(x-2)^4$

6

Which function has these roots and multiplicities? $x = 2$ (multiplicity 2), $x = 3$ (multiplicity 1)

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

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

C $f(x) = (x-1)^3(x-2)^2$

D $f(x) = (x+3)(x+2)^2$

E $f(x) = (x-2)(x-3)$

7

Which function has these roots and multiplicities? $x = -1$ (multiplicity 1), $x = 2$ (multiplicity 3)

A $f(x) = (x-1)(x-3)^2$

B $f(x) = (x+2)^3(x-1)$

C $f(x) = (x+1)(x-2)^3$

D $f(x) = (x+1)^2(x-2)^3$

E $f(x) = (x+1)^3(x-2)$

8

Which function has these roots and multiplicities? $x = -2$ (multiplicity 1), $x = -1$ (multiplicity 3)

A $f(x) = (x+2)(x+1)^3$

B $f(x) = (x-1)^3(x-2)$

C $f(x) = (x+3)(x+1)^3$

D $f(x) = (x+2)^3(x+1)$

E $f(x) = (x-1)(x-3)$