

4. [11 points] Consider the graphs of y = A(x) and y = B(x) given below:

a. [2 points] A(x) is a degree 5 polynomial. Write down all of its zeros.

A(x) has zeros at x = _____

b. [3 points] Write down a formula for A(x), showing **all** your work.

 $A(x) = _____.$

c. [3 points] The graph of B(x) has vertical asymptotes at x = -1 and x = 1, and a horizontal asymptote at y = 0.8. If $B(x) = \frac{p(x)}{q(x)}$ where p(x) and q(x) are polynomials, write down all the zeros of both polynomials.

p(x) has zeros at x = ______. q(x) has zeros at x = ______.

d. [3 points] Write down a possible formula for B(x).

B(x) =_____