On pages 1.2 and 1.3, graph the functions and find the zeros for each.

- $f1(x) = 2x^3 - 5x - 3$

  $f2(x) = 6x^3 - 25x^2 + 21x + 10$

  $f3(x) = 3x^4 - 11x^3 - 3x^2 - 6x + 8$

  What do these functions have in common?

- $f4(x) = 2x^3 - 5x^2 - x + 8$

  $f5(x) = x^3 + 3x - 3$

  $f6(x) = 4x^4 + 9x^3 - 9x^2 - 15$

  What do these functions have in common?

On page 1.6, enter the functions from page 1.2 into the command **prgm1**.

- How do the two sets that are displayed relate to the function entered?

- Can any combination of the values in the two sets produce a zero of the function? If so, what is the zero? To explore this, define the expression as f(x). Then replace *x* with the *x*-value.

Now on page 1.9 use the **prgm1** command to investigate the functions on page 1.3.

- Can you find a combination of the values in the two sets that produce a zero of the function? If so, what is the zero?

- When does the function have a zero but the sets do not produce one?