

## Zeros of Polynomial Functions

1. Find all zeros

$$f(x) = x^3 - 3x^2 - 18x + 40$$

2. Find all zeros

$$f(x) = 4x^3 - 17x^2 + 16x - 3$$

3. Find all zeros

$$f(x) = x^3 - 4x^2 + 9x - 10$$

4. Find all zeros

$$x^4 + 5x^3 - 5x^2 - 15x + 14 = 0$$

5. Find all zeros

$$x^4 - x^3 + 3x^2 - 9x - 54 = 0$$

6. Find all zeros

$$f(x) = x^4 - 6x^3 + 30x - 25$$

7. Find all zeros

$$f(x) = x^4 + 4x^3 + 6x^2 + 4x + 1$$

8. Find an  $n$ th-degree polynomial function with real coefficient satisfying the given conditions

$n = 3$ ; 3 and  $2i$  are zeros