

Write the standard form of the polynomial with least degree and integer coefficients with the given zeros.

$$2, \frac{1}{3}, \frac{2}{3}$$

$$-1, 0, 3, \frac{3}{2}$$

Divide $f(x)$ by $d(x)$ using long division. Write a summary statement in polynomial form and factored form.

$$f(x) = x^3 - 4x^2 + 2x + 5; d(x) = x - 2$$

Write a polynomial function of minimum degree in factored form with real coefficients whose zeros and their multiplicities include those listed. Then sketch a graph and discuss what you notice.

-1 (multiplicity 3), 0 (multiplicity 2), 3 (multiplicity 1)