

Precalculus, Chapter 2, Power, Quadratic, and Polynomial Functions

2.1.2 (**Functions**): I can write and apply quadratic functions to data and real-world situations by using vertex and zeros. I can explain its relevance in regards to the situation.

P. 169: 21, 24, 30, 38, 40, 42, 61, 63

2.2.1 (**Functions**): I can identify a power function and write inverse/direct variation equations.

P. 182: 2, 3, 8, 15, 19, 21, 28, 52

2.3.1 (**Algebra**): I can find the zeros of a polynomial graphically and algebraically.

P. 193: 3, 10, 28, 38, 44, 50

2.3.2 (**Functions**): I can identify the multiplicity of a zero and use the odd/even multiplicity rule to sketch a graph.

P. 193: 40, 42, 61, 72-74

2.4.1 (**Algebra**): I can use polynomial division, the *Factor Theorem*, and the *Fundamental Connection* to factor a polynomial and finds its real zeros.

P. 205: 6, 10, 16, 21, 26, 50, 55, 60, 65

2.6.1 (**Functions**): I can identify the points of discontinuity, the vertical asymptotes, the horizontal asymptotes, the domain, and the range of a rational function. I can use this information to graph a rational function.

P. 225: 3, 15-18, 38, 42, 54, 66

2.7.1 (**Algebra**): I can solve rational equations and identify extraneous solutions.

P. 233: 2, 7, 13, 31, 39

Vocabulary:

- Power function
- Polynomial function
- Constant of variation
- Coefficient
- Leading term
- Multiplicity
- Quotient
- Remainder
- Dividend
- Divisor
- Rational function
- Slant asymptote
- Extraneous solution
- Sign chart