Quadratic Relations Strand Expectations:

1) determine the basic properties of quadratic relations

2) relate transformations of the graph of $y = x^2$

to the algebraic representation $y = a(x-h)^2 + k$

3) solve quadratic equations and interpret the solutions with respect to the corresponding relations

4) solve problems involving quadratic relations

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Quadratic Relations Strand Expectations:

1) determine the basic properties of quadratic relations

- drawing parabola
  - → vertex
  - → step pattern
  - → zeros
  - → direction of opening
  - → table of values
    - → 2nd differences constant
  - → axis of symmetry
  - → y-intercept

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2) relate transformations of the graph of $y = x^2$

to the algebraic representation $y = a(x-h)^2 + k$

shift up by k
shift right by h
} vertex (h, k)

a → scale factor (→ step pattern)
(stretch or compression)
→ vertical reflection

vertex (h, k)
- axis of symmetry
- min/max optimal value

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3) solve quadratic equations and interpret the solutions with respect to the corresponding relations

- finding zeros from standard, factored or vertex form
- factoring (simple & complex trinomials, common factors, perfect squares, difference of squares)
- expand & simplify
- quadratic formula
- completing the square

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4) solve problems involving quadratic relations

word

- sketch a graph
- interpret a graph
- given TOV, graph + interpret
- interpret problems + develop equations to solve (e.g., revenue)

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Assigned work for Monday - Thursday:

p. 190 #16 - 22

p. 365 - 366 #1 - 25

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