

Agilemind - Topic 4 - Introduction to Polynomials  
Exploring; "Deepening your understanding of quadratics and cubics"

Answer **Question 1** - SAS4

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Answer **Question 2** - SAS4

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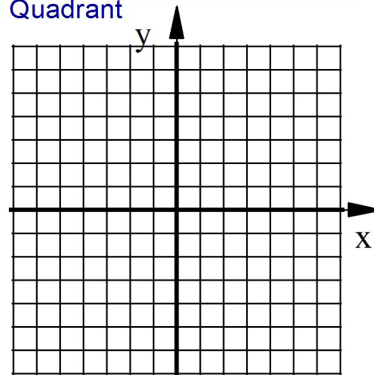
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Answer Question 3 - SAS4

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Use a separate piece of graph paper to sketch the graph of this function which is NOT a cubic.

- Abs Max value of 6 in the 2nd Quadrant
- Increasing:  $(-\infty, -2)$  &  $(2, 4)$
- Decreasing:  $(-2, 2)$  &  $(4, \infty)$
- Rel Min value of 1
- Rel Max value of 5
- y-intercept = 2.5



- Abs Max value of 6 in the 2nd Quadrant

this max must occur when  $x = -2$  because that is where the graph changes from inc to dec.

- Increasing:  $(-\infty, -2)$  &  $(2, 4)$

- Decreasing:  $(-2, 2)$  &  $(4, \infty)$

- Rel Min value of 1

this min must occur when  $x = 2$  because that is where the graph changes from dec to inc.

- Rel Max value of 5

this max must occur when  $x = 4$  because that is where the graph changes from inc to dec.

- y-intercept = 2.5

