Mathematics Class Slides Bronx Early College Academy

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 $\mathsf{BECA} \ / \ \mathsf{Dr}. \ \mathsf{Huson} \ / \ \mathsf{IB} \ \mathsf{Math} \ \mathsf{Unit} \ \mathsf{5} \ \mathsf{-} \ \mathsf{Polynomial} \ \mathsf{functions}$

5.1 Solving quadratic equations	Tuesday 28 January
5.2 Quadratic functions where $a \neq 1$	Wednesday 29 January
5.3 Completing the square	Friday 31 January
5.4 Quadratic formula	Monday 3 February
5.5 The discriminant	Tuesday 4 February
5.6 The discriminant	Wednesday 5 February
5.7 The discriminant	Thursday 6 February

GQ: How do we factor and solve quadratic equations?

CCSS: HSF.IF.C8.A Factor quadratic functions to show zeros 5.1 Tuesday 28 January

Do Now: Quadratic functions

- 1. Function operations, composition, inverse
- 2. Interpreting quadratic functions in vertex form
- 3. Solving graphical situations

Exam makeup: Dayna, Monica, Wendy (collect take-homes from vector group)

Lesson: Factored form; "solutions," "roots," "zeros," *x*-intercepts Quadratic functions pp. 233-236

Homework: Deltamath Factoring (continue textbook problems)

GQ: How do we graph quadratics when $a \neq 1$?

CCSS: HSF.IF.C8.A Factor quadratic functions to show zeros 5.2 Wednesday 29 January

Do Now: Solving quadratic equations

- 1. Factoring quadratic functions
- 2. Interpreting quadratic functions in vertex form
- 3. Solving graphical situations

Lesson: Vertical stretch, the *a* parameter

The axis of symmetry

Homework: Deltamath Completing the square, due Thursday (continue textbook problems)

GQ: How do we factor by "completing the square"?

CCSS: HSF.IF.C8.A Complete the square of quadratic functions 5.3 Friday 31 January

Do Now: Solving quadratic equations

Classwork counts double while Dr. Huson is out!

- 1. Graphing quadratic functions
- 2. Factoring quadratic functions
- 3. Solving graphical situations

Please complete Workplace Visits career questionaire.

Lesson: Completing the square, converting to vertex form

Homework: Deltamath due Sunday 10:00pm (continue textbook problems)

GQ: How do we use the quadratic formula?

CCSS: HSF.IF.C8.A Complete the square of quadratic functions 5.4 Monday 3 February

Do Now: Solving quadratic equations

- 1. Completing the square
- 2. Graphing quadratic functions
- 3. Factoring quadratic functions

Lesson: Completing the square, converting to vertex form

Homework: Deltamath due tomorrow 10:00pm (continue textbook problems)

GQ: How do we know the number of solutions of a quadratic function?

CCSS: HSF.IF.C8.A Complete the square of quadratic functions 5.5 Tuesday 4 February

Do Now Quiz: Calculator practice

- 1. Graphical solutions of systems of functions
- 2. Linear regression
- 3. Frequency tables
- 4. Complex calculations (e.g. cosine rule)

Lesson: Using the discriminant, D or Δ

Homework: Deltamath due tonight 10:00pm (continue textbook problems)

GQ: How do we know the number of solutions of a quadratic function?

CCSS: HSF.IF.C8.A Complete the square of quadratic functions 5.6 Wednesday 5 Feb

Do Now: Solving quadratic equations

- 1. Graphing quadratic functions
- 2. Factoring quadratic functions
- Completing the square

Lesson: Completing the square, converting to vertex form Homework: Deltamath due tonight 10:00pm (continue textbook problems)

GQ: How do we graph polynomial functions?

CCSS: HSF.IF.C8.A Complete the square of quadratic functions 5.7 Thursday 6 February

Do Now: Solving quadratic equations

- 1. Graphing quadratic functions
- 2. Factoring quadratic functions
- 3. Completing the square

Lesson: Features of polynomial graphs, increasing/decreasing

Homework: Deltamath (continue textbook problems)