Mathematics Class Slides

Bronx Early College Academy

Chris Huson

19 November - 30 November 2018

BECA / Dr. Huson / 11.1 IB Math Unit 4

4.1 Drui: Exponent rules, Monday Nov 19

4.2 Drui: Laptop, Deltamath, Desmos /Word. Tuesday Nov 20

4.3 Drui: Exponential functions, Wednesday Nov 21

4.4 Drui: Intro to logarithms, Monday Nov 26

4.5 Drui: Laptop, Deltamath, Desmos Tuesday Nov 27

4.6 Drui: Logarithmic functions, Wednesday Nov 28

4.7 Drui: Logarithm bases, Thursday Nov 29

4.8 Drui: Laws of logarithms, Monday Dec 3

4.9 Drui: Laptop, Deltamath, Desmos Tuesday Dec 4

4.10 Drui: Logarithms change of base, Wednesday Dec 5

4.11 Drui: Exponential & logarithm function applications, Thursday Dec

GQ: How do we manipulate exponential expressions?

CCSS: HSF.IF.C.7 Analyze functions 4.1 Monday Nov 19

Do Now: Skills check p. 100

Review Exam
Exponent operations p. 100-104

Homework: Exercises 4A p. 104

How do we communicate mathematical results?

CCSS: MP.4 Model with mathematics 4.2 Tuesday Nov 13

Technical skills needed to communicate mathematics

1. Word processing: Microsoft Word and equation editor
2. Computer calculators: Desmos; domain restriction, labeling
3. Cloud storage: Dropbox
4. Technical writing standards: MLA format (Purdue OWL)
5. Writing style: declarative
6. Assessment criteria: IB exploration criterion *B: Mathematics Presentation*

Deltamath exponential practice. Homework: complete Deltamath
Makeup: Rewrite Quadratics paper, using model as guide

GQ: How do we understand exponential functions?

CCSS: HSF.IF.C.7 Analyze functions 4.3 Wednesday Nov 21

Do Now: Exercise #4C p. 107

Solving exponent equations #4D p. 108
Exponential functions, p. 109-114

Homework: Exercises 4F p. 114 (review 4B-4E)

GQ: How do we define logarithms?

CCSS: HSF.IF.C.7 Analyze functions 4.4 Monday Nov 26

Do Now: Exponent exercises handout

Review exponential function transformation homework #4G p. 114
Compound interest exploration p. 111
Properties of logarithms, p. 115-6

Homework: Exercises 4G, 4H p. 115-6
Parent-teacher conferences Thursday & Friday

How do we work with logarithms?

CCSS: MP.4 Model with mathematics 4.5 Tuesday Nov 27

Technical skills needed to communicate mathematics

1. Word processing: Microsoft Word and equation editor
2. Computer calculators: Desmos; domain restriction, labeling
3. Cloud storage: Dropbox
4. Technical writing standards: MLA format (Purdue OWL)
5. Writing style: declarative
6. Assessment criteria: IB exploration criterion *B: Mathematics Presentation*

Deltamath exponents & logarithm practice.
Homework: complete Deltamath
Parent-teacher conferences Thursday & Friday

GQ: How do we understand logarithmic functions?

CCSS: HSF.IF.C.7 Analyze functions 4.6 Wednesday Nov 28

Do Now: Exponent exercises handout

Review exponential function transformation homework 4G, 4H p. 115-6
Logarithmic functions, p. 118-9

Homework: Exercises 4J p. 119
Parent-teacher conferences tomorrow & Friday

GQ: How do we use different logarithm bases?

CCSS: HSF.IF.C.7 Analyze functions 4.7 Thursday Nov 29

Do Now: Logarithm exercises handout

Logarithmic functions, p. 119-122

Homework: Exercises 4K, 4L p. 120-122; weekend packet

Parent-teacher conferences today & tomorrow

GQ: How do we manipulate logarithmic expressions?

CCSS: HSF.IF.C.7 Analyze functions 4.8 Monday Dec 3

Do Now: Logarithm exercises handout

Logarithmic expressions & equations, p. 122-124

Homework: Exercises 4M p. 124

How do we work with logarithms?

CCSS: MP.4 Model with mathematics 4.9 Tuesday Dec 4

Deltamath exponents & logarithm practice.
Homework: complete Deltamath

GQ: How do we change of base of logarithmic expressions?

CCSS: HSF.IF.C.7 Analyze functions 4.10 Wednesday Dec 5

Do Now: Logarithm exercises, simplify

1. $\log_3 6 + \log_3 15$
2. $\log_4 8 - \log_4 2$
3. $\log a + \log b - \log c$
4. $\log_7 14 + \log_7 \frac{1}{2}$
5. $\ln e^3 + \ln e^{-1}$

Logarithmic expressions, 4.7 Solving equations, p. 125-8

Homework: Exercises 4O p. 126

GQ: How do we model exponential situations?

CCSS: HSF.IF.C.7 Analyze functions 4.11 Thursday Dec 6

Do Now: Change each expression to one in terms of $\log_{10}$

1. $\log_3 6$
2. $\log_2 20$
3. $\log_a b$
4. $\ln 121$

4.8 Applications, p. 128-133

Homework: Exercises 4P & 4Q p. 128-9 (handout)