Mathematics Class Slides

Bronx Early College Academy

Chris Huson

2 January 2020

BECA / Dr. Huson / IB Math Unit 4 - Linear functions and regression

4.1 Introduction to linear functions Thursday 2 January

4.2 Linear models, rate of change Friday 3 January

4.3 Graphing quiz, direct variation, modeling Monday 4 January

4.3 Writing to learn - probability text

4.3 Seating chart

4.4 Deltamath review, test corrections Tuesday 5 January

4.5 Modeling, piecewise functions Wednesday 8 January

4.6 Function inverse and function composition Thursday 9 January

GQ: How do we interpret linear graphs?

CCSS: HSS.CP.A.4 Understand linear functions 4.1 Thursday 2 January

Do Now Skills check page 141

Know three forms of linear equations:

1. Slope-intercept form: $y = mx + b$
2. Standard form: $ax + by = c$
3. Point-slope form: $(y - y_1) = m(x - x_1)$

Afterschool review exploration papers

Lesson: linear functions review pp. 140-150

Homework: Textbook exercises 4A p. 146 & 4B p. 150 (and 4C optionally)

GQ: How do we interpret slope as rate of change?

CCSS: HSS.CP.A.4 Understand linear functions 4.2 Friday 3 January

Do Now handout

Know three forms of linear equations:

1. Slope-intercept form: $y = mx + b$
2. Determining the slope from two points
3. Applying point-slope form: $(y - y_1) = m(x - x_1)$

Afterschool review exploration papers

Lesson: 4.2 linear models, rate of change pp. 151-159

Homework: Textbook exercises 4C p. 153-4 & 4D p. 158-9

GQ: How do we interpret slope as rate of change?

CCSS: HSS.CP.A.4 Understand linear functions 4.3 Monday 4 January

Do Now Quiz

Know three forms of linear equations:

1. Slope-intercept form: $y = mx + b$
2. Determining the slope from two points
3. Applying point-slope form: $(y - y_1) = m(x - x_1)$

Welcome Mr. Nortonsmith

TOK p. 159:
To what extent does the language we use shape the way we think?

Lesson: Direct variation, modeling pp. 159-159

Homework: Textbook exercises 4E p. 160 & 4F p. 163-4

Writing to learn: Translate text into symbols

These answers are correct. Rewrite them using algebraic symbols.

Exam question:
6. Given events A and B with $\mathrm{P}(A) = 0.4$, $\mathrm{P}(B) = 0.5$, $\mathrm{P}(A \cap B) = 0.25$.
(c) State whether events A and B are independent. Justify your answer.

Answer:
"No. Upon multiplying $\mathrm{P}(A)$, which is 0.4, and $\mathrm{P}(B)$, which is 0.5, it does not equal the intersection."

"Events A and B are not independent. In independent events, the intersection of the two events equals the product of Event A and B. Since 0.15 (Event A) and 0.4 (Event B) do not multiply to their intersection (0.25), the two events are not independent."

New seating chart!

Sit in your assigned seat to recieve classwork credit.

			Front of room				
Aaryan	Galytia		Ashley S.	Lakeisha		Nolan	Keandra
Noel	Guadalupe		Seline	Syeda		Wayne	Ashley M.
Tia	Dayna		Monica	Yasira		Leslie	Wendy
Hailey	Daena			Sadiyah			
			Julien				
Nicholas	Sarah		Aliyah	Odalis			
Jason	Alana		Vanecia	Jairo			

GQ: How do we interpret slope as rate of change?

CCSS: HSS.CP.A.4 Understand linear functions 4.4 Tuesday 5 January

Do Now: Venn diagram problem

1. Interpret the quantities in a Venn diagram
2. Assigning quantities to a Venn diagram given a situation
3. Interpret set notation as Venn diagram shading

Deltamath linear functions practice

Spicy: Vector introduction

Homework: Complete textbook exercises 4A-4F, Deltamath review problems

GQ: How do we model situations with multiple conditions?

CCSS: HSS.CP.A.4 Understand linear functions 4.5 Wednesday 8 January

Do Now: Function and algebra review

1. Simple function notation
2. Calculator use with trig functions
3. Solve literal equations algebraically

Lesson: Piecewise functions pp. 165-167

Homework: Textbook exercises 4G p. 167

GQ: How do we operate on functions?

CCSS: HSS.CP.A.4 Understand linear functions 4.6 Thursday 9 January

Do Now: Linear function IB problems

1. Simple function notation
2. Solving graphical situations

Lesson: Function inverse and function composition pp. 168-177

Homework: Handout (due tomorrow)
Textbook exercises 4H, 4I, & 4J (due Monday)