



Teachers Teaching with Technology™
Professional Development from Texas Instruments

2020 T³™ Webinars

IB® Math Curriculum Topic 4: Statistics and Probability

Thursday, Jan. 30, 2020 | **7 p.m. Central time**

Technology: TI-84 Plus family, TI-Nspire™ CX family

Presenter: Daniel Wilkie

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T3™ IB® Webinars

Aug 01	IB® Are You Ready for the Math Curriculum Changes?
Aug 22	IB® Math Curriculum Topic 1: Number and Algebra
Sep 26	IB® Math Curriculum Topic 2: Functions
Oct 24	IB® Math Curriculum Topic 3: Geometry and Trigonometry
Dec 05	Improving Students' IB® Mathematical Explorations
Jan 30	IB® Math Curriculum Topic 4: Statistics and Probability
Feb 27	IB® Math Curriculum Topic 5: Calculus

All webinars begin at 7pm (Central)

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Tonight's *Presenter*



Daniel Wilkie

T³ Regional Instructor

Pelzer, SC

Daniel has taught every level of high school math (including IB and AP) for 24 years in Texas, New York, Virginia, and now South Carolina. He is currently teaching Math at Christ Church Episcopal School in Greenville, South Carolina. Daniel has been married to his loving wife Amanda for 16 years. They have 3 awesome children: Cameron (10), Alex (7), and Kevin (4). Other than loving his family, Daniel enjoys educating teachers on all things TI and acting in local theater productions.

In this webinar the presenter will:

- Provide an overview of the Statistics and Probability subtopics in all four IB[®] math courses
- Highlight what is available on the new Texas Instruments IB[®] Resources website for this topic
- Demonstrate a Statistics and Probability sample activity using TI-84 Plus CE and TI-Nspire™ CX II graphing calculators

Presenter: Daniel Wilkie

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What's New?

KEY	New Content	2012 Mathematical studies SL	2012 Mathematics SL	2012 Mathematics HL	2012 Mathematics HL options
Mathematics: applications & interpretation			Mathematics: analysis & approaches		
SL Content		Additional HL Content		Additional HL Content	

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Topic 1: Algebra	SL 1.1* Operations with numbers in the form $a \times 10^k$ where $1 \leq a < 10$ and k is an integer.	AHL1.9 Laws of logarithms: $\log_a xy = \log_a x + \log_a y$ $\log_a \frac{x}{y} = \log_a x - \log_a y$ $\log_a x^m = m \log_a x$ for $a, x, y > 0$	SL 1.1* Operations with numbers in the form $a \times 10^k$ where $1 \leq a < 10$ and k is an integer.	AHL 1.10 Counting principles, including permutations and combinations. Extension of the binomial theorem to fractional and negative indices, i.e., $(a + b)^n, n \in \mathbb{Q}$.	
	SL1.2* Arithmetic sequences and series. Use of the formulae for the n^{th} term and the sum of the first n terms of the sequence. Use of sigma notation for sums of arithmetic sequences. Applications. Analysis, interpretation and prediction where a model is not perfectly arithmetic in real-life.	AHL 1.10 Simplifying expressions, both numerically and algebraically, involving rational exponents.	SL1.2* Arithmetic sequences and series. Use of the formulae for the n^{th} term and the sum of the first n terms of the sequence. Use of sigma notation for sums of arithmetic sequences. Applications. Analysis, interpretation and prediction where a model is not perfectly arithmetic in real-life.	AHL 1.11 Partial fractions.	
	SL 1.3* Geometric sequences and series. Use of the formulae for the n^{th} term and the sum of the first n terms of the sequence. Use of sigma notation for the sums of geometric sequences. Applications.	AHL 1.11 The sum of infinite geometric sequences.	SL 1.3* Geometric sequences and series. Use of the formulae for the n^{th} term and the sum of the first n terms of the sequence. Use of sigma notation for the sums of geometric sequences. Applications.	AHL 1.12 Complex numbers: the number i , where $i^2 = -1$ Cartesian form $z = a + bi$; the terms real part, imaginary part, conjugate, modulus and argument. The complex plane.	
	SL 1.4* Financial applications of geometric sequences and series: <ul style="list-style-type: none"> Compound interest Annual depreciation 	AHL 1.12 Complex numbers: the number i such that $i^2 = -1$. Cartesian form: $z = a + bi$; the terms real part, imaginary part, conjugate, modulus and argument. Calculate sums, differences, products, quotients, by hand and with technology. Calculating powers of complex numbers, in Cartesian form, with technology. The complex plane. Complex numbers as solutions to quadratic equations of the form $ax^2 + bx + c = 0, a \neq 0$, with real coefficients where $b^2 - 4ac < 0$	SL 1.4* Financial applications of geometric sequences and series: <ul style="list-style-type: none"> Compound interest Annual depreciation 	AHL 1.13 Modulus-argument (polar) form: $z = r(\cos \theta + i \sin \theta) = rcis \theta$ Euler form: $z = re^{i\theta}$ Sums, products and quotients in Cartesian, polar or Euler forms and their geometric interpretation.	

IB[®] Resources at education.ti.com



Education Technology

Products	Downloads	Activities	Professional Development	Resources	Customer Support	Where to Buy	About Us
Math			Test Preparation		Funding and Research		
Science			TI in Focus: AP Calculus		BulleTIn Board		
STEM			Tutorials		Partners in Student Success		
IB [®] Resources			Career and Technical Education				



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All Classroom Activities			TI Codes		IB [®] Resources		

Resources for IB[®] Diploma Programme mathematics teachers

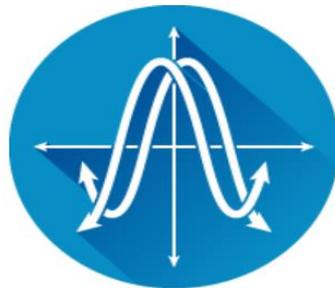
Support student success for the new International Baccalaureate[®] (IB[®]) Diploma Programme mathematics curricula using Texas Instruments (TI) resources.

TI activities and webinars help strengthen:

- » Mastery of concepts and principles
- » Logical, critical and creative thinking
- » Breadth and depth of knowledge



Explore free activities



Analysis and Approaches

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Applications and Interpretation

Get activities that support core concepts for Mathematics: Applications and Interpretation.

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<https://eventmobi.com/t3ic2020/>

Join Daniel at T³IC 2020.



SESSIONS

 **Saturday, March 14**

🕒 8:30am - 9:30am

127. IB® and TI — a Match Made in Heaven

🕒 9:45am - 11:15am

169. Connecting Algebra and Science With Technology

🕒 3:30pm - 4:30pm

249. Seven for Seven



**Join us for the next IB® webinar from
T³ Professional Development—**

IB® Math Curriculum Topic 5: Calculus

**Thursday, February 27th
7pm (Central)**

education.ti.com/tiwebinars

Post-Webinar Follow-up

Find useful resources, answers to your questions & access to friendly, knowledgeable customer support and technical reps.

General Questions: 1-800-TI-CARES

Technical Questions: 972-917-8324
or ti-cares@ti.com



For a consultation on an upcoming purchase of TI Technology or professional development, please contact us at: ti-educators@ti.com



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Thank you!

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