

12.1 IB Math - Unit 9: Probability

Bronx Early College Academy

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7.1 Venn diagrams, Monday 18 March

6.3 Addition rule of probabilities, Monday 4 February

7.1 Right triangle review. Monday 18 March

6.6 Deltamath trigonometry review. Tuesday 12 March

6.7 Circle sector, arc problems. Wednesday 13 March

GQ: How do we notate sample spaces with Venn diagrams?

CCSS: HSS.CP.A.3 Understand conditional probability

7.1 Monday 18 March

Do Now: Draw a Venn diagram of these 110 students:

- ▶ 25 students took physics
- ▶ 45 students took biology
- ▶ 48 students took mathematics
- ▶ 10 students took physics and mathematics
- ▶ 8 students took biology and mathematics
- ▶ 6 students took biology and physics
- ▶ 5 students took all three subjects

How many took biology, but neither physics nor mathematics?

How many students did not take any of the three subjects?

Lesson: Sets, complements, union, intersection, empty set

Homework: Problem set

GQ: How do we add the probabilities of multiple events?

CCSS: HSS.CP.A.3 Understand conditional probability

6.3 Monday 4 February

Lesson: The addition rule, probability

Homework: Exercises 3C p. 74-75 Unit test Thursday

GQ: How do we use probabilities?

CCSS: HSF.TF.A.3 Extend trig functions with the unit circle

6.6 Monday 11 March

Do Now: Calculator integration fluency

Sketch, solve for $f(x) = g(x)$, and find the area between the curves (write down the integration expression and calculate)

1. $f(x) = x$ for $x > 0$, $g(x) = 2 \sin x$
2. $f(x) = \sqrt{x+1}$, $g(x) = \frac{1}{2}(x+1)$
3. $f(x) = \sqrt{4-3x^2}$, $g(x) = 0$
4. The volume of #3 rotated 360° around the x-axis

Lesson: Test review, work problems on board

Homework: Trig & mixed exam problems

GQ: How do we define and calculate right triangle measures?

CCSS: HSG.SRT.C.8 Use trigonometric ratios to solve right triangles in applied problems

6.2 Tuesday 5 March

Exam review

Lesson: Deltamath trigonometry (& calculus) review

Homework: Complete Deltamath problem set

GQ: How do we measure parts of a circle?

CCSS: HSF.TF.A.3 Extend trig functions with the unit circle 6.7 Wednesday 13 March

Do Now Quiz: Special triangle trig (exact) values, no calculator

1. *Medium* Find the values of $\sin 30^\circ$, $\sin 45^\circ$, & $\sin 60^\circ$
2. *Spicy* Find $\sin \frac{\pi}{6}$, $\cos \frac{3\pi}{4}$, & $\tan -\frac{\pi}{3}$

Lesson: Circle sector, arc problems, work problems on board
Homework: 3.1, 3.2, 3.3 Trig & mixed exam problems