

Announcements

WeBWork #2 is now open

- Due Wednesday, January 18 at 9pm
- Covers material from “Unit 2”—see syllabus on course web page

Office hours: location update

- Wednesdays 11:00am–12:30pm, room **GEOG 242**
- Thursdays 1:30–3:00pm, room MATH 212

Quiz #1 will take place here on Friday, January 20 (second half of class time)

- Covers material from Units 1–2 (same material as WeBWorks #1–2)
- You **must** bring your student ID to class on every quiz day
- You **must** take the quiz in the section you're registered in

Monday, January 16

Clicker Questions

Clicker Question 1

Definite integrals and units

Suppose the variable t represents time in hours, and the function $P(t)$ represents the power level of a generating station, measured in megawatts.

What are the **units of** $\int_0^{24} P(t) dt$?

- A. **megawatt-hours** — same units as $\sum_{i=1}^n P(x_i^*) \Delta t$
- B. megawatts per hour
- C. megawatts
- D. joules
- E. none of the above

Side note: power is the rate of change of energy, so

$$\int_0^{24} P(t) dt = \int_0^{24} E'(t) dt = E(24) - E(0).$$

Clicker Question 2

Find a matching pair

Suppose that F is an antiderivative of f . Of the following four expressions, which two are equal to each other? (Hint: what is the derivative of $F(g(x))$? Use FTC part 2.)

A. $\int_a^b f(g(x))g'(x) dx = F(g(x)) \Big|_a^b = F(g(b)) - F(g(a))$

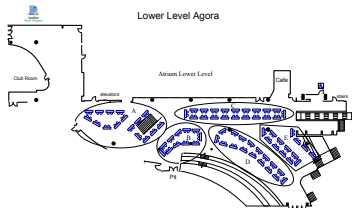
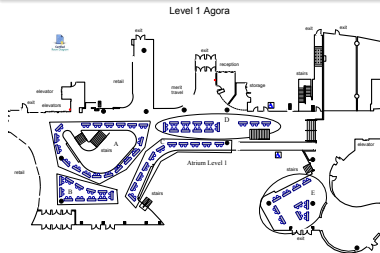
B. $\int_a^b f(u) du = F(u) \Big|_a^b = F(b) - F(a)$

C. $\int_{f(a)}^{f(b)} g'(x) dx = g(x) \Big|_{f(a)}^{f(b)} = g(f(b)) - g(f(a))$

D. $\int_{g(a)}^{g(b)} f(u) du = F(u) \Big|_{g(a)}^{g(b)} = F(g(b)) - F(g(a))$

Monday, January 16

“More than Math” Mondays



AMS Clubs Days

- January 18–20, 10am–3pm
- Agora, AMS Student Nest
- Academic, cultural, athletic, religious, artistic, medical, recreational, political, charitable, social . . .
- <http://www.ams.ubc.ca/clubs/joining-a-club/clubs-days>

A dozen clubs chosen at random (almost)

- AMS Boxing Club at UBC
- UBC Pre-Veterinary and Animal Welfare Club
- Young Women in Business
- AMS Ecuadorian Students Association at UBC
- Ballet Club
- Friends of Médecins Sans Frontières
- UBC Debate Society
- AMS unboundED
- SisuGirls
- PRINT Arts and Crafts Club
- Sikh Students' Association
- Magicians & Illusionists Association
- UBC Quidditch