Monday, February 27

Announcements

WeBWorK #7 is now open

- Due Wednesday at 9pm
- Covers material from “Unit 7”—see syllabus web page

Quiz #2 regrades

- Still processing; will return them in class this week

After Quiz #3

- Solutions available online
- Quizzes returned online by Friday, March 3

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Clicker Questions

Clicker Question 1

Combining average values

Suppose the average value of a function $f(x)$ on the interval $[1, 2]$ equals 12, while the average value of the same function on the interval $[2, 6]$ equals 2. What is the average value of $f(x)$ on the inteval $[1, 6]$? Example of such a function: $f(x) = 24/x^2$.

Warning and hint

The answer *isn't* 7! Consider $\int_1^6 f(x)\,dx = \int_1^2 f(x)\,dx + \int_2^6 f(x)\,dx$.

A. 14

B. $\sqrt{24}$

C. 10

D. 4

E. more information is needed

Step by step

$\frac{1}{2-1}\int_1^2 f(x)\,dx = 12$, so $\int_1^2 f(x)\,dx = 12$.

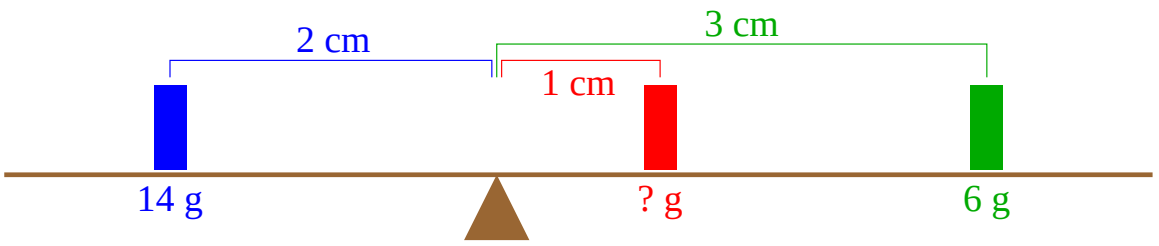
$\frac{1}{6-2}\int_2^6 f(x)\,dx = 2$, so $\int_2^6 f(x)\,dx = 8$.

So $\int_1^6 f(x)\,dx = 12 + 8 = 20$, which means $\frac{1}{6-1}\int_1^6 f(x)\,dx = 4$.

Clicker Question 2

Just a moment

A 6-gram object is placed 3 cm to the right of the origin, and a 14-gram object is placed 2 cm to the left of the origin. How much mass must be placed 1 cm to the right of the origin to make the centre of mass equal to 0?



A. 5 grams
B. 10 grams
C. 44 grams
D. 8 grams
E. none of the above

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“More than Math” Mondays

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PrideWeek (formerly OutWeek)—many events

- Friday, March 3–Friday, March 10
- Pride Collective at UBC: AMS resource group, offers "education and social services dealing with sexual and gender diversity. Everyone is welcome."
- www.prideubc.com and www.facebook.com/prideubc

Science Meet Your Major—mingle session

- Monday, March 6, 5:30pm, Life Sciences Centre
- "Departmental advisors and senior students in each specialization come together for one night to answer all of your questions."
- science.ubc.ca/students/events/meet-your-major