## Announcements

- Will finish the semester with all classes remote
    - Remote tutorials Wednesday & Friday @ 10:30

    - Thursday @ 8:30 will be optional office hour
      Or just come to work, and I'll be around to answer questions!

    - If have a preference for Wednesday vs Friday tutorial, fill out onCourse
      questionnaire by 5:00 pm today
      Would prefer to keep roughly equal numbers in each

- Will return exams by end of today
  Will include current course average

- Will be able to complete WeBWorK after today, but shifted due date to Friday

Consider $\int (x^2 - 2x) \sqrt{x^3 - 3x^2 + 1} \, dx$

If $u = x^3 - 3x^2 + 1$, then after $u$-substitution, the integral becomes

(a) $\int \sqrt{u} \, du$

(b) $\int 3\sqrt{u} \, du$

(c) $\int \frac{1}{3}\sqrt{u} \, du$

(d) $\int u^{3/2} \, du$

(e) Errr. . . .

Consider $\int \frac{4x}{1+x^2} \, dx$

If $u = 1 + x^2$, then after $u$-substitution, the integral becomes

(a) $\int \frac{1}{u} \, du$

(b) $\int \frac{x}{u} \, du$

(c) $\int \frac{1}{2u} \, du$

(d) $\int \frac{2}{u} \, du$

(e) 42

**Find the following integrals, verify your answer by taking the derivative, and enter your answers on today's Jamboard (link in onCourse)**

1. $\displaystyle\int 7x\, e^{x^2}\, dx$,     Let $u = x^2$

2. $\displaystyle\int \frac{\sin(x)}{\cos(x)}\, dx$,     Let $u = \cos(x)$

3. $\displaystyle\int \frac{1}{x\ln(x)}\, dx$,     Let $u = \ln(x)$

4. $\displaystyle\int \frac{\sin(\sqrt{x})}{\sqrt{x}}\, dx$,     Let $u = \sqrt{x}$