

Name:
J#:
Date: <b>2017 June 21</b>

Exercise Type (Cost):

**In-Class (1AP)**

Standard: This student is able to...	Mark:
<b>C05: IntTech.</b> Identify appropriate integration techniques.	
4/4	★ reattempt due on:

Draw lines matching each of the five integrals on the left with the most appropriate integration technique listed on the right. Multiple techniques may be technically possible, but choose the technique most useful to begin integration. Every integral and technique is used exactly once in the correct answer.

$$\int \sin^4(x) \cos^3(x) dx$$

- Integration by Substiution

$$\int \frac{x^3 + 4x - 1}{(x + 4)(x^2 + 5)^2} dx$$

- Method of Partial Fractions

$$\int 6x^2 \sqrt{1 + x^3} dx$$

- Trigonometric Identities

$$\int \sin(2x) e^x dx$$

- Trigonometric Substitution

$$\int \frac{4}{x^2 \sqrt{x^2 - 1}} dx \text{ where } x > 1$$

- Integration by Parts

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**In-Class (1AP)**

Standard: This student is able to... <b>C06: AreaBtCurv.</b> Express an area between curves as a definite integral.	Mark:
3/4 ★ reattempt due on:	

Find a definite integral equal to the area bounded by  $y = x$ ,  $y = 2x - 1$ , and  $x = 2$ .

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**In-Class (1AP)**

Standard: This student is able to... <b>S06: CrossSect.</b> Express an area between curves as a definite integral.	Mark:
1/3 ★ reattempt due on:	

Find a definite integral equal to the volume of the wedge-shaped solid whose base lays on the region  $0 \leq x \leq 4$  and  $0 \leq y \leq 2$ , and whose cross-sections at each  $x$ -value are rectangles of height  $x$ .