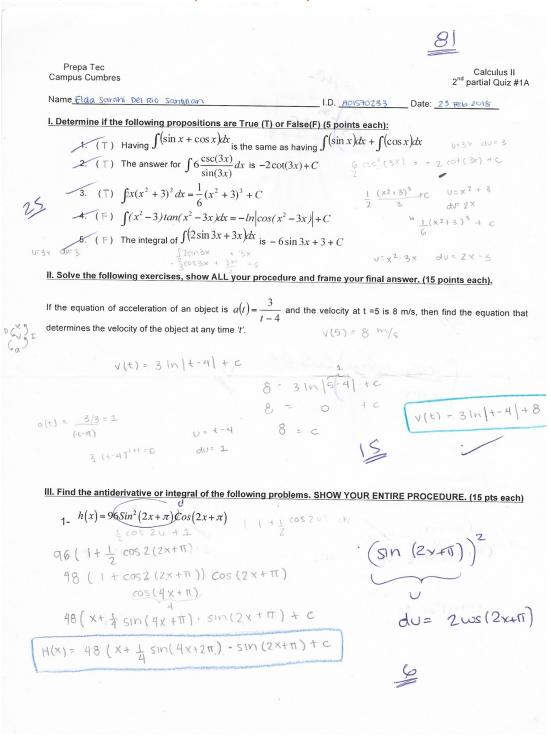
5. Quiz 1 Second Partial (with corrections)



$$v(t) = \frac{e^{\frac{5}{4}t}}{3t^{2}}$$

$$v = \frac{5}{t}$$

$$v(t) = \frac{e^{\frac{5}{4}t}}{3t^{2}}$$

$$v(t) = \frac{e^{\frac{5}{4}t}}{3t^{2}}$$

$$v(t) = \frac{e^{\frac{5}{4}t}}{3t^{2}}$$

v(t) = e -5/4 -53+-2

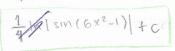
U= S U = 0 V=+ V1=1

- 5 t2

3- $\int 3x \cot(6x^2-1)Sin(6x^2-1)dx$

3x(0+(6x2-1) dx . Sm(6x2-1) dx

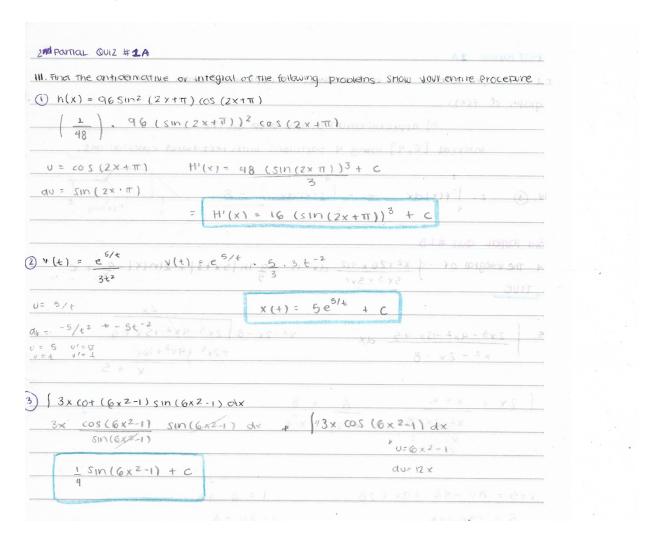
 $0 = 6x^2 - 1$ 10=12x



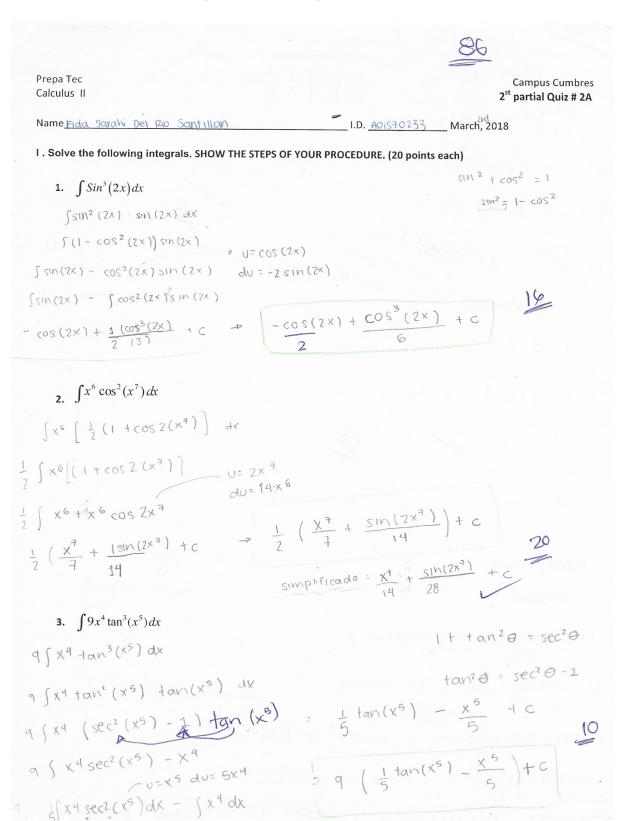
1 cos sínz (cos dx

dv=3

Corrections Quiz 1 Second Partial



6. Quiz 2 Second Partial (with corrections)



$$4. \quad \int x^3 \sin^2(x^4) dx$$

$$\int \chi^3 \left[\frac{1}{2} \left(1 - \cos 2\theta \right) \right]$$

$$\int x^3 (1 - \cos 2(x^4))$$

$$\frac{1}{7}$$
 $\int x^3 - x^3 \cos 2x^4$

$$\frac{1}{2} \left(\int x^3 dx - \int x^3 \cos 2x \right) = 2x^4$$

$5. \quad \int Cot^2(5x) dx =$

$$= -\frac{1}{5} \cot (5 \times) - \times + C$$

$$\frac{1}{2} \left(\frac{x^4}{4} - \frac{1 \sin 2x^4}{8} \right) + c$$

$$\frac{X^4}{8} = \frac{\sin 2x^4}{16} + C$$

BONUS (8 POINTS)

$$\int Cos^5 (3x) dx$$

 $\int \cos^2(3x) \cos^2(3x) \cos(3x) dx$

v= sin(3x) d==-3cos(3x) Scos(3x) - 512 (3x) cos(3x) + (60s(3x) - 512 (3x) (0s(3x))

$$\frac{1}{3}\sin(3x) + \frac{1}{3}\sin(3x) + \frac{1}{3}\sin(3x) + \frac{1}{3}\sin(3x) + \frac{1}{3}\sin^3(3x) + C$$

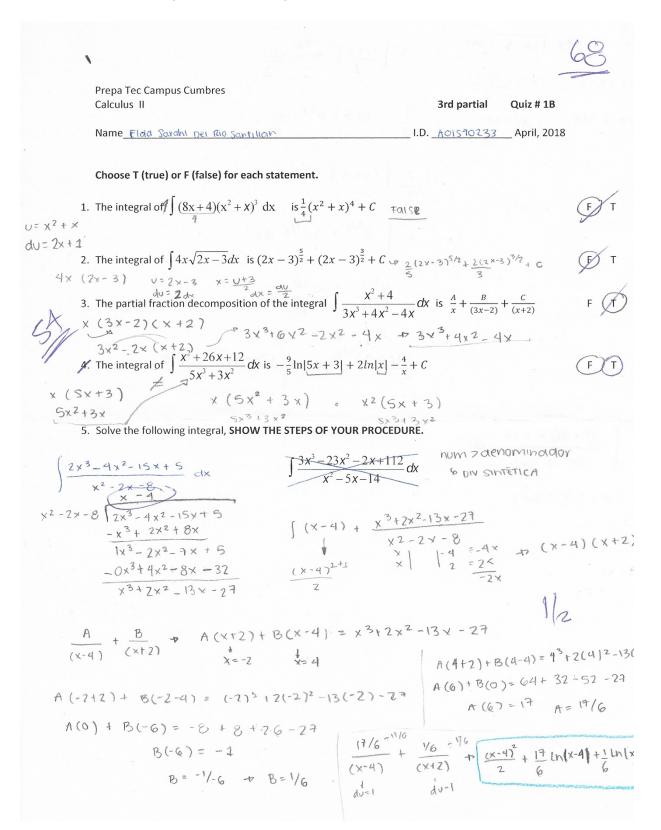
cot20 = cs20 -1

$$\cos^2 = 1 - \sin^2$$

Corrections Quiz 2 Second Partial

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2nd parrial OUIZ #2A
1. Sin3 (2x) dx
 (sin2 (2x) . sin(2x) dx
(1-cos2(2x)) sm(2x) 0=cos(2x) du = -2 sm(2x)
( sin(2x) - cos2(2x) sin(2x)
( sin(2x) - ( cos2 (Zx) sin(2x)
-1cos(2x) + 1 cos3(2x) + c
3. (9x4+an3(x5) ax
 9 (x4 +an3 (x6) ax
 x4 tan 2 (x5) tan (x5) dx
(sec2(x5) - 1) tan (x5)
9 (x4 tan (x5) sec2 (x5) x4tan (x5) dx
   5x4 sec 2 (x6) 5x4
   = \frac{1.900^{3}(x^{5})}{15} + \frac{1.101(05(x^{5}))}{5}
                                             3 sec3 (x5) + 9 ln (05(x5) + C
BONUS
1605 (3x) dx
\int \cos^2(3x) \cos^2(3x) \cos(3x)
                                                   0= sin(3x) du=-1 (05 (3x)
(1-SIN^{2}(3x)) (1-SIN<sup>2</sup>(3x)) cos(3x)
(05 (3x) - SIN2 (3x) cos (3x) + (cos (3x) - SIN2 (3x) cos (3x))
   1 sin(3x) +1 sin3(3x) + 1 sin(3x) + 1 sin3(3x)
          1 SIN (3x) +1 SIN3 (3x) +1 SIN3 (3x) + C
```

7. Quiz 1 Third Partial (with corrections)



(2)
$$\int 4x \sqrt{2x-3} \, dx$$
 $4 \int \frac{0+3}{2} \sqrt{\frac{1}{2}} \, dv$
 $v = 2x-3$ $x = \frac{0+3}{2}$
 $dv = 2 \, dx$ $dx = \frac{dv}{2}$
 $dv = \frac{4}{2} \int (v+3) v'^2 \, dv$
 $dv = \frac{2}{2} \int (v+3) v'^2 \, dv$
 $dv = \frac{2}{2} \int (v+3) v'^2 \, dv$

$$\frac{0^{5/2}}{5/2} + \frac{0^{3/2}}{3/2}$$

$$\frac{2(2x-3)^{5/2}}{5} + \frac{2(2x-3)^{3/2}}{3} + C$$

(a)
$$\int \frac{x^2 + 26x + 12}{5x^3 + 3x^2} dx$$
$$\times (5x^2 + 3x)$$

Corrections Quiz 1 Third Partial

