PHILOT GLASS TEST (A)

Roll No.: pm21ms002

gi. (1) 5 - d = 32 - dy.

 $d\vec{r} = dy (as z = coust.)$

=> 3x8 \ dy = 3x3x \ [y] = 9x9 = 81

 $\int \vec{v} \cdot d\vec{r} = \int -2y \cdot dz = \int 2y dz = 18 \left[z \right]_0^3$

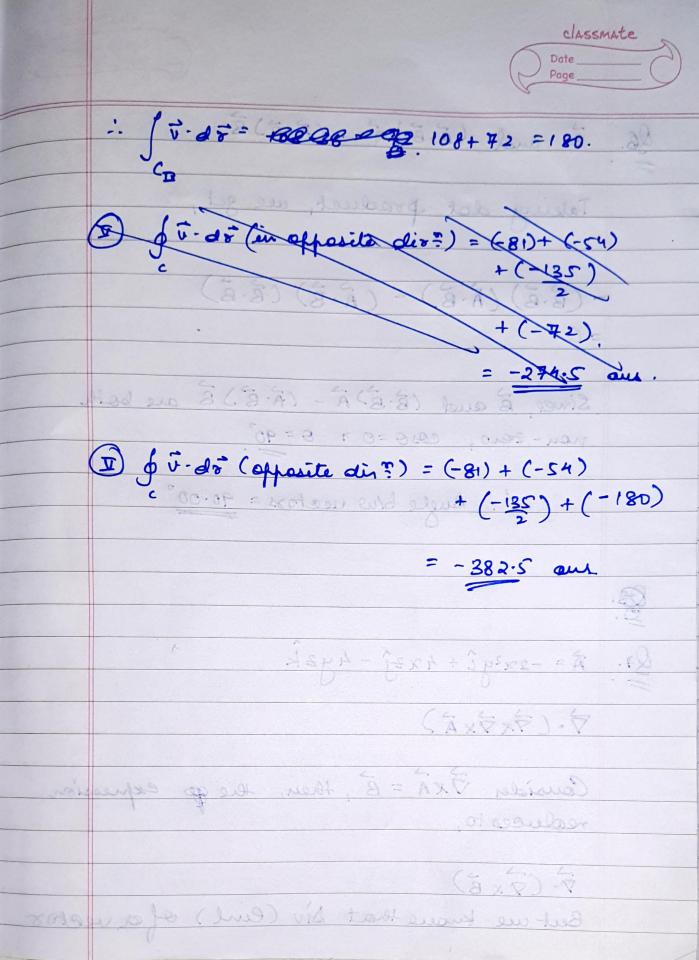
(1) Eg : ef line: y=3x+9

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For x-dif:
$$\int -2y dx = -\int 2(x^2 - A^2) dx$$
.

$$\frac{1}{3} \frac{1}{3} \frac{1}$$

$$=\int 6\pi^2 dx = 6 \int \pi^2 dx = \beta \cdot \left[x^3\right]$$



QE. B and (B.B) \$ - (A.B) B

Taking dat product, me get,

- (B.B) (A.B) - (A.B) (B.B)

=0

Since, Band (B.B) A- (AB) Bare both non-zero, coso=0 > B=90°

Augle blus meetoss = 90.00°

3.

87. À = -2x2yî + 4xzî - 4yzk

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Consider $\vec{\nabla} \times \vec{A} = \vec{B}$, then, the go expression reduces to,

 $\vec{\nabla} \cdot (\vec{\nabla} \times \vec{B})$

Best are known that Div (Pint) of a vector

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es alucays zero.

Marcionum Derivative = Gradient.

$$\vec{\nabla} \varphi = \vec{\nabla} \left(2\pi \vec{z} - g^2 \right).$$

