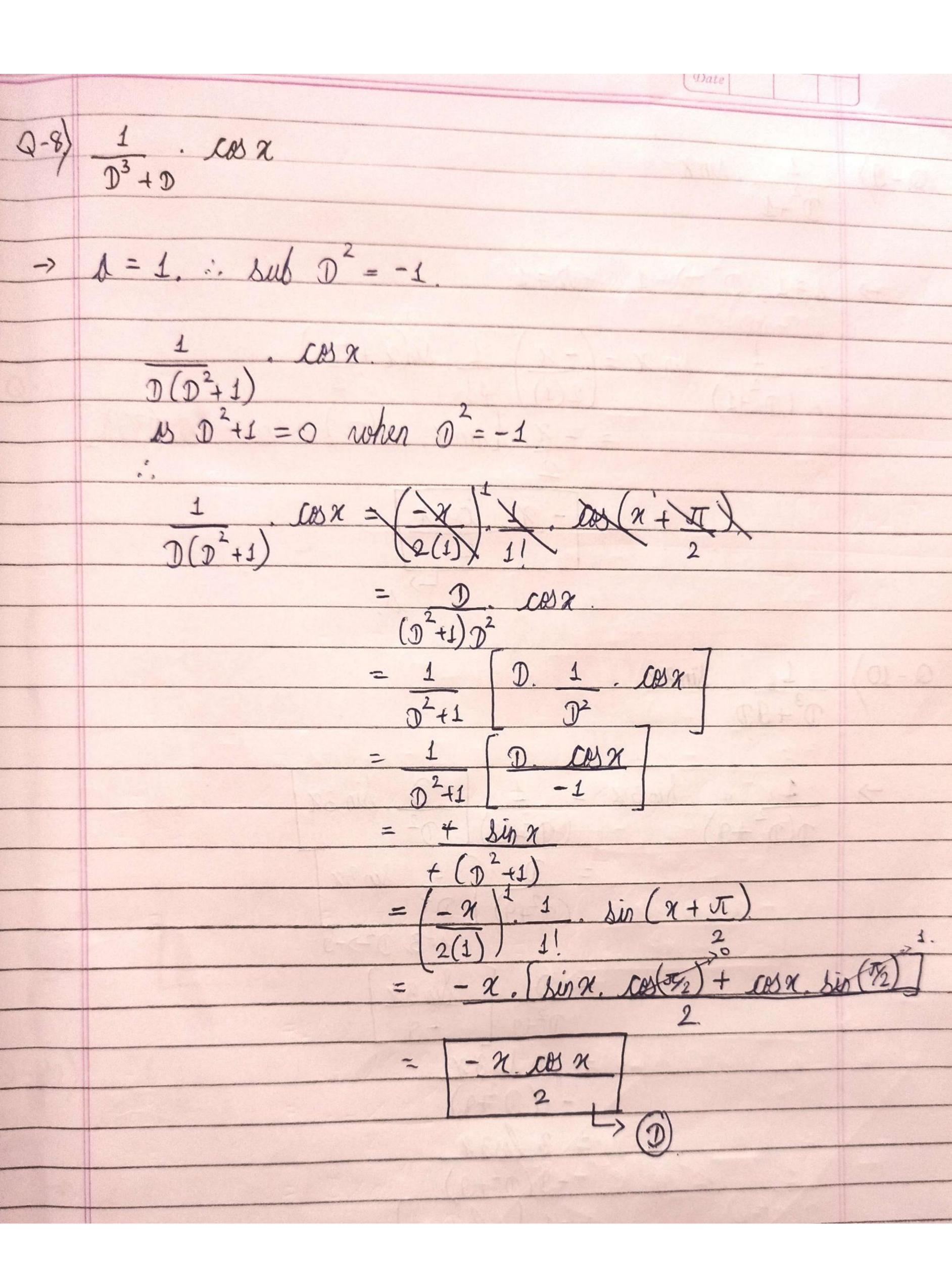
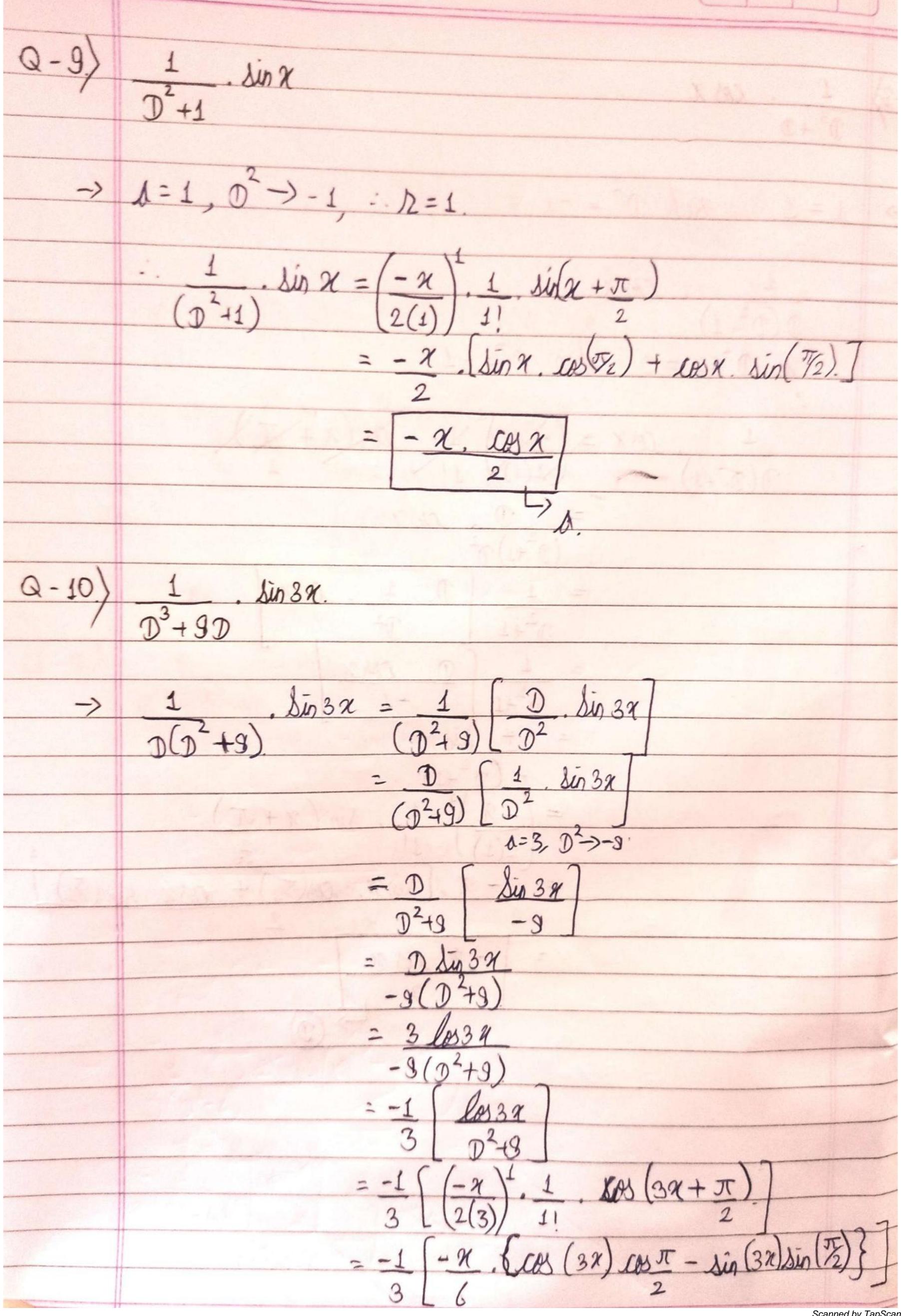
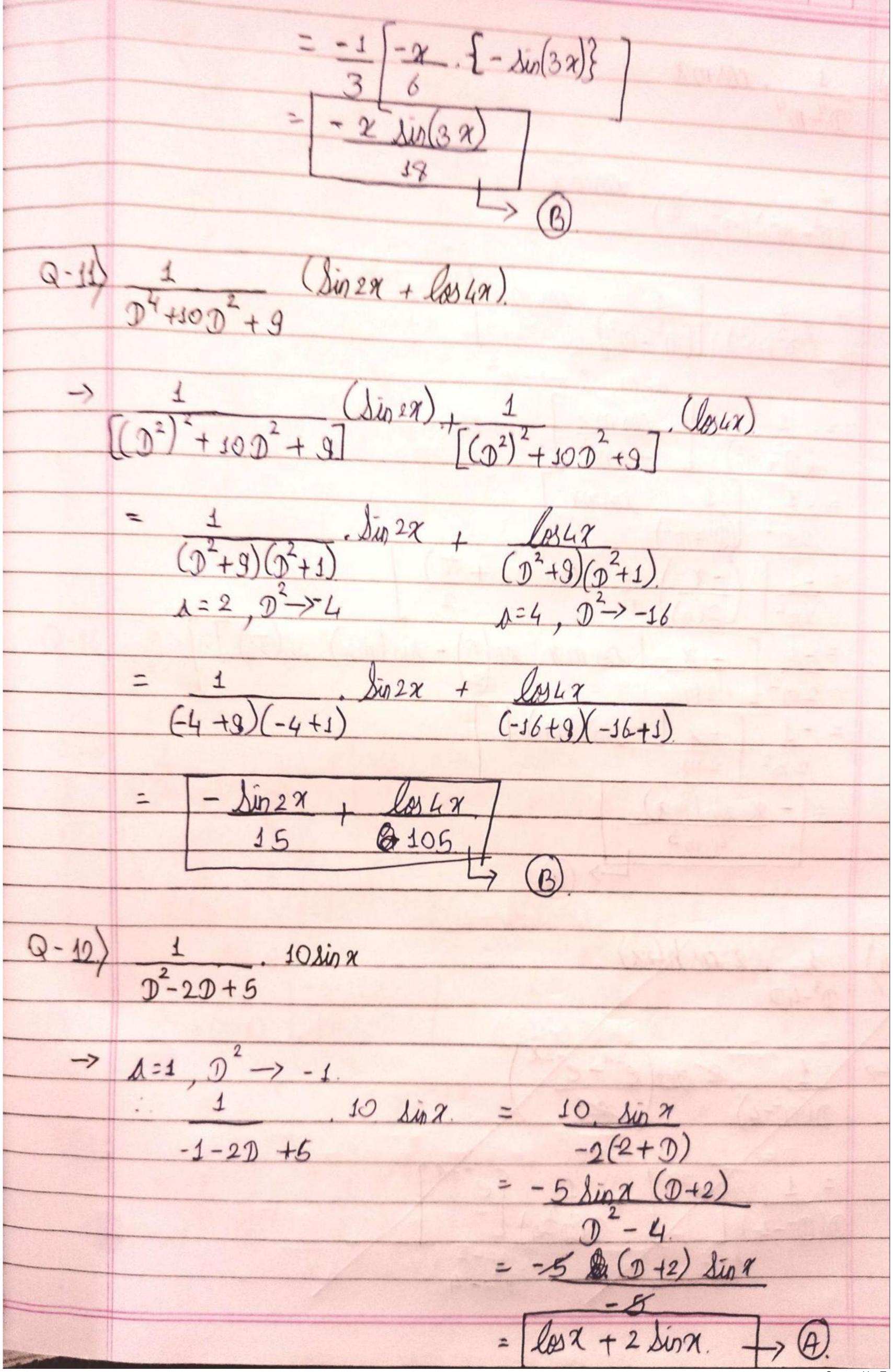


Q-6)	1 02
	$(\mathfrak{I}^{2}+1)(\mathfrak{I}-1)$
->	$\frac{1}{(D^{2}+1)(D-1)}e^{2}$ compare with $\frac{1}{\phi(D)}$, $e^{\alpha H}$, we get.
	$(D^{4})(D-1)$ $\phi(D)$
	$\Delta = 1$, $\Phi(D) = (D^2 + 1)[(D - 1)]$
	. 0 - / 11 24
	$\frac{1}{1}$
100	$= \chi e^{\chi} $
	2
	(c).
Q-7/	$\frac{1}{2}$ $\sin 2\alpha$
	D ² -4D+4
->	$\Delta = 2$: Sub $D^2 = -4$
	10 - 2 · · · · · · · · · · · · · · · · · ·
	i 1 1 1 1 1 1 1 1 1 1
	(-4)-40+4
	$=-1.\sin 2\eta$
	40
	$= -D \sin 2x$
	$= -D \sin 2x$
	$= D \sin 2\pi$
	16
	= 2.001291
	16
	= CB271
	8 17 (8)





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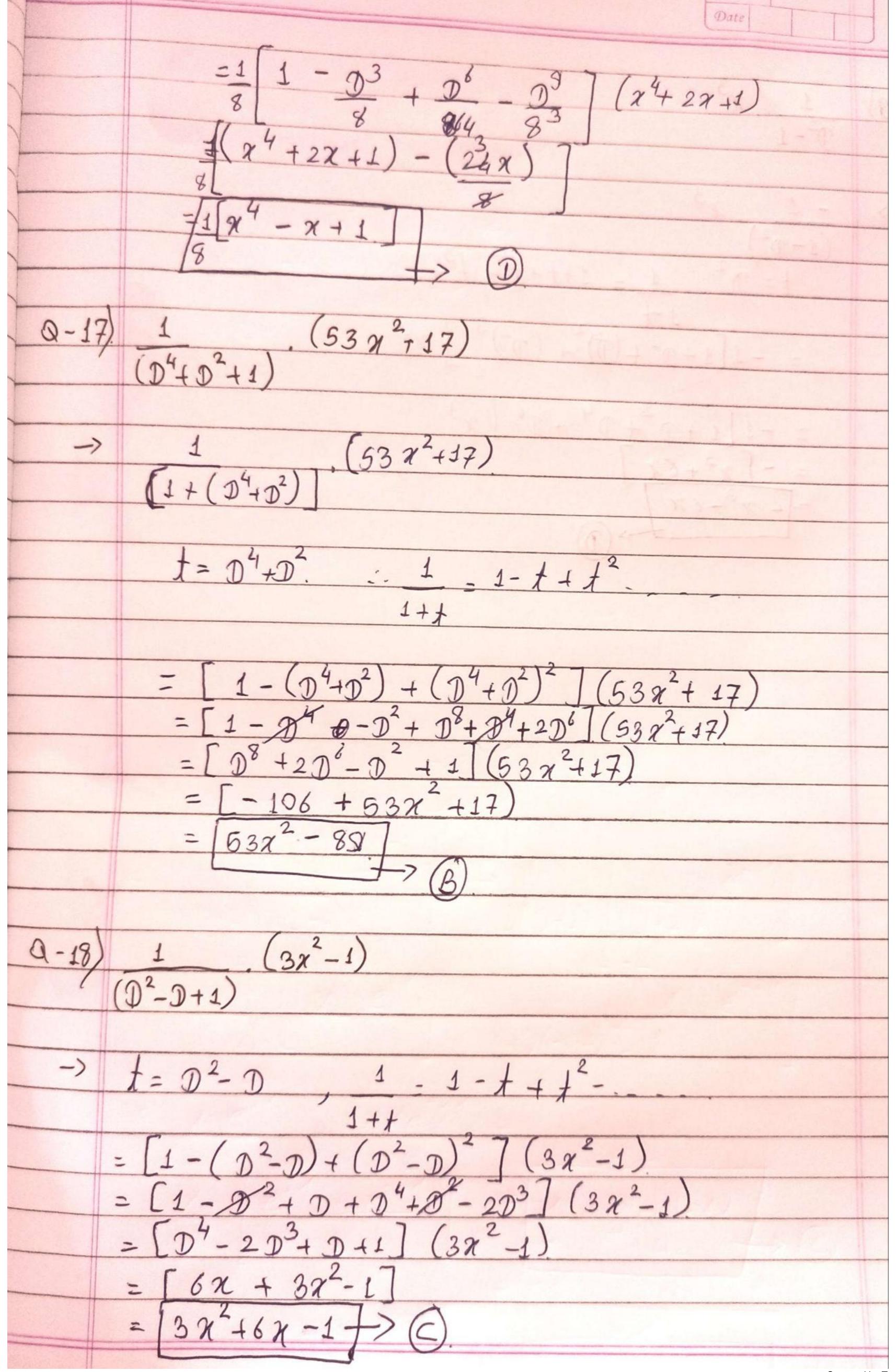
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Q 13)	$\frac{1}{D^4 m^4}$. $LOS m \chi$
	$\mathcal{D}-m^{\gamma}$
→	$\frac{1}{(n^2-2)(n^2-2)}$ COSMX
	$\frac{(D-m)(9+m)}{7}$
	$= \frac{1}{(D^2 + m^2)} \frac{1}{(D^2 - m^2)} \frac{\cos mx}{(D^2 - m^2)}$
	$a=m, D^2 \rightarrow -m^2$
	$= \frac{1}{\left(\mathbb{D}^2 + m^2\right)} \left[\frac{CBS m \eta}{-2m^2} \right]$
	$= -1 \qquad \boxed{1 \qquad \text{COSMM}}$ $2m^2 \qquad \boxed{D^2 + m^2}$
	$= -1 \left(-\frac{1}{2} \right) \left(\frac{1}{2} \right) \left(\frac{1}{$
	$= -1 \left[-x \cdot \left[\cos m\pi \cdot \cot \pi \right] - \sin (m\pi) \cdot \sin (\pi) \right]$
	$\frac{2m^2}{2m^2} \left[\frac{2m}{2m} \right] $ $= -1 \left[-x \left[-x \left(\frac{mx}{2} \right) \right] \right]$
	$2m^2$ $2m$
	$= - \frac{\chi \sin(mx)}{4 m^3}$
	上) (3).

Q-14	$1.2 \cosh(2x)$	
	$\mathcal{D}^3-4\mathcal{D}$	
->	1 2 e ²⁷ + e ⁻²⁷	
	D(D+2)(D-2) 2	The same
	= 1 1 e ^{2x} 1 1 . e ^{2x} 7	
	D(D+2)(D-2) $D(D-2)(D+2)$	
	$\Delta = 2. \lambda = 1$ $\Delta = -2. h = 1$	
	=:.1 [x e ²]	
	2(2+2)	
	$= \chi e^{24} + \chi e^{-24}$	
	8	
	$= x \left e^{2x} + e^{-2x} \right = \left x \cdot \cosh(2x) \right $	
	4 2 14 +> 6	

- 0 16	
Q-15.	$\frac{1}{D^2 + \delta D - 9} \cdot \sin h(3\pi)$
	1 39 -397
→	1 1
	D ² +6D-9 2
	5 327 [1
	$2(D^2+6D-9)$ (D^2+6D-9)
	= 1 [1 . e ³⁷] [1 . e ⁻³⁷]
	2 8+18-8 8-18-8
	-397
	= 1 e + e
	$\frac{2}{1} \left[\frac{18}{\rho^{38} + \rho^{-387}} \right]$
	= 1 e fe
	- Lo L (20)
	18 +> (A)
Q-16)	$1 (\chi^4 + 2\chi + 1)$
-0./	D ³ +8
->	$\frac{1}{(\chi^4 + 2\chi + 1)}$
($(D+2)(D^2-2D+4)$
=	$\frac{1}{(\chi^{4}+2\chi+1)}$
	$\frac{1}{8(1+D^3)}(\chi^{4}+2\chi+1)$
	$t = D^3 \qquad \frac{1}{1+t} = 1-t + t^2 - t^3 + t^4 - \cdots$
	$\frac{1=0}{2}, 1+t 1-t+t t t + T$
	· (1) (3) (3)2 (3)3 (7)3/47 (24+27+4)
	=======================================
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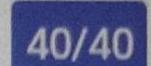
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Q-19)	$1 \chi^3$
	\mathbb{D}^2-1
~	-1 χ^3
	$(1-p^2)$
	$t=0^2$, $t=1+t+t^2+t^3+$
	1 1
	$= -1[1+p^2+(p^2)^2+(p^2)^2]^3$
	$= -1 \left[1 + D + D^4 + D^6 \right] \chi^3$
	$= -\left[\frac{\chi^3 + 6\chi}{3} \right]$
	$= - \chi^{5} - 6 \chi$

Tutorial three

Total points 40/40





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$$\frac{1}{D^2 - 7D + 6}e^{2x} =$$

$$\frac{-e^{2x}}{4}$$

$$\frac{e^{2x}}{4}$$



Option 1