(L-Space) &- Let [x, x, u] be a measure

Space and p 40 then we define

Such that

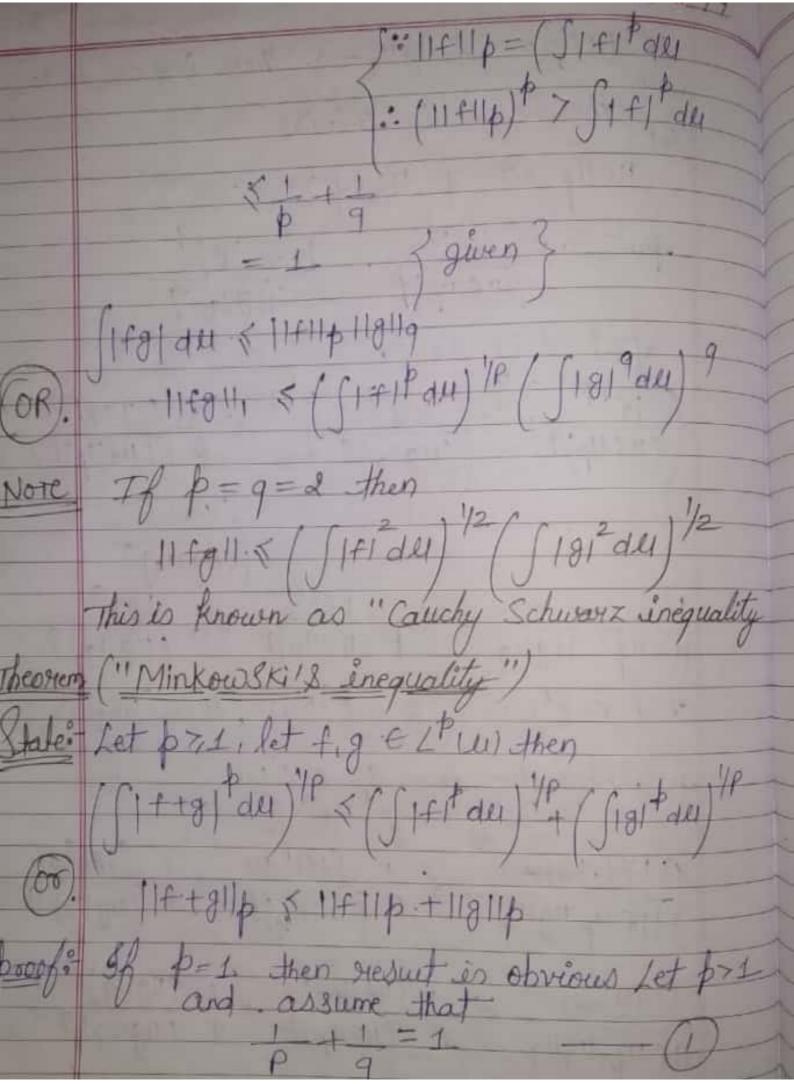
[f: SIFI del < \alpha] # LP-norm :- Let FE 2 less then I norm of F 11+11p = (SIFI# du) 1P heariem folder Inequality: Statement 8- Let 1<P<0, 1<9<00 and 1+1=1 also let f & IP(11) and g & IP(11).

then fg & I'(11) and OR). 11fg | du · ≤ 11fl | p. 11g | 19 OR). 11fg | 1, ≤ (Sifi du) 1/P. (Sigi du) 1/9 brook In this theorem , we use following lemma If aro, 620, 6+1=1 where \$71,971 then 1/P (b) 1/9 < 9 + b - ()

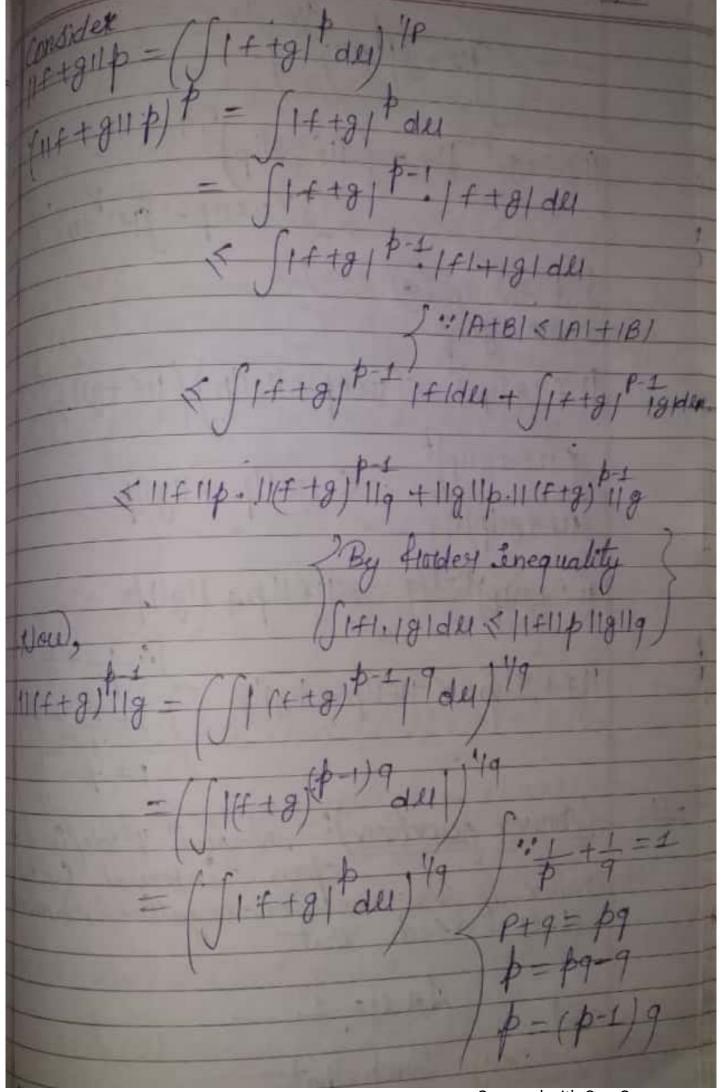
(a) 1/P (b) 1/9 < 9 + conned with CamScani

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| If 11+11p=0 & 11gilg=0 then f.g=0 q.e. |
|--|
| then the result is trivial |
| Let 11511270 7 118119.70. |
| but a = 1+1+, b = 1819 |
| Pul (11711) P (118119) 9 |
| - but this in (). |
| 1 1+1 1 1P. / 1819) 19 (1- (1+1P) + |
| ((11+14)+) ((119119)9) P ((11+11p)+) |
| [181] |
| (119/19) |
| 1fl . 181 F P (11+11p) + 9 (119119) 9 |
| 108 f e L'(e), g e 19(e), then the |
| L.H.Sofeq (2 |
| is integrable then fg & L'(u) Integrating eq (2) |
| (171.18)de < 1 SIFI de 1 51819 de |
| J1141119119 P (11411p) P (118119) 9 |
| (1781d4 1 (11711b) 1 (118119) 9 |
| 11+11b. 118119 P (11+11p) P + 9 (119119) 9 |
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