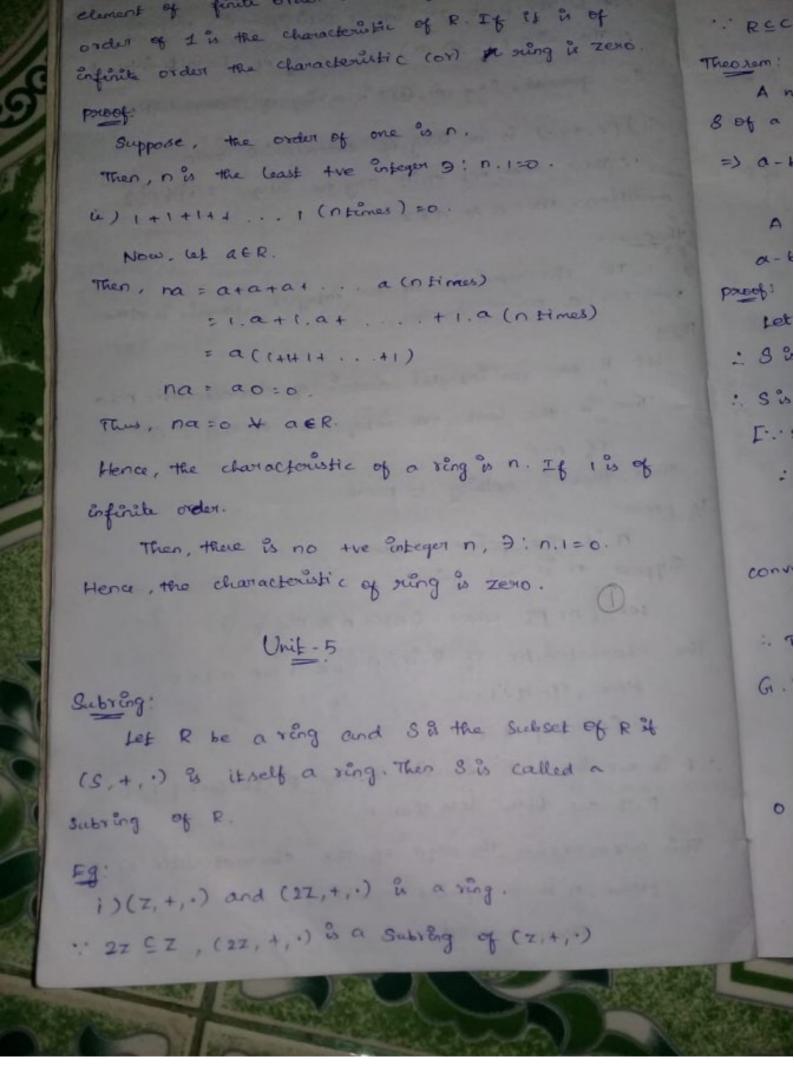
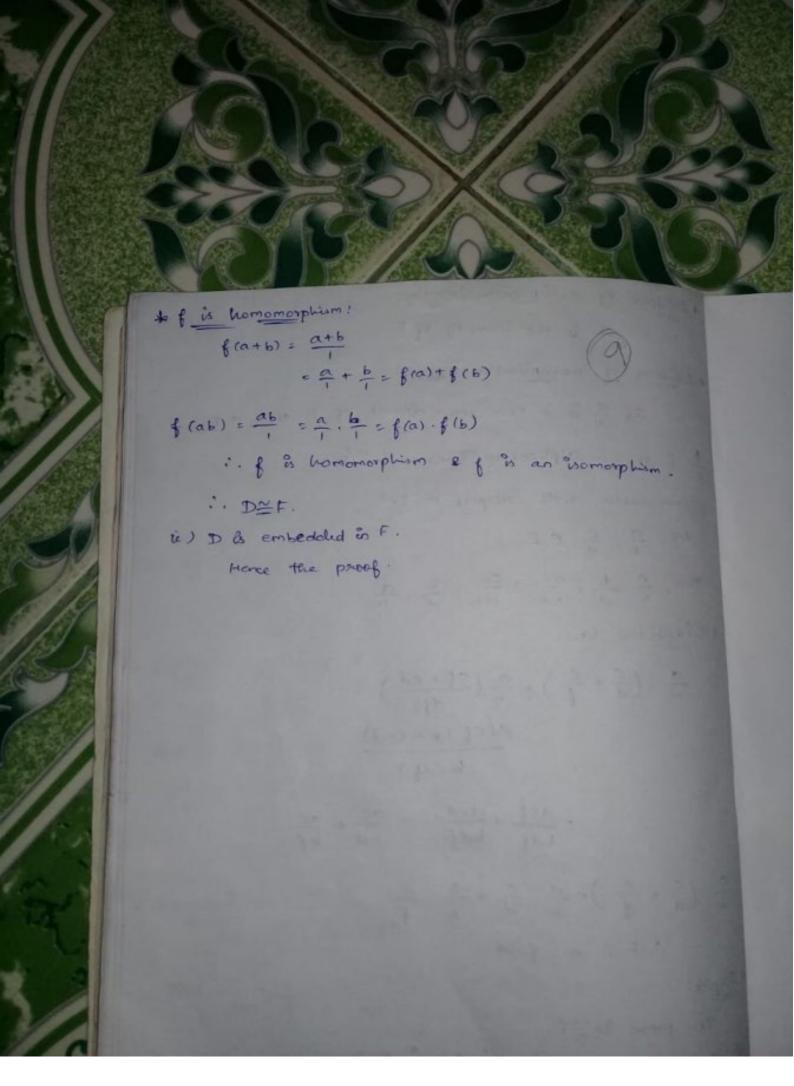


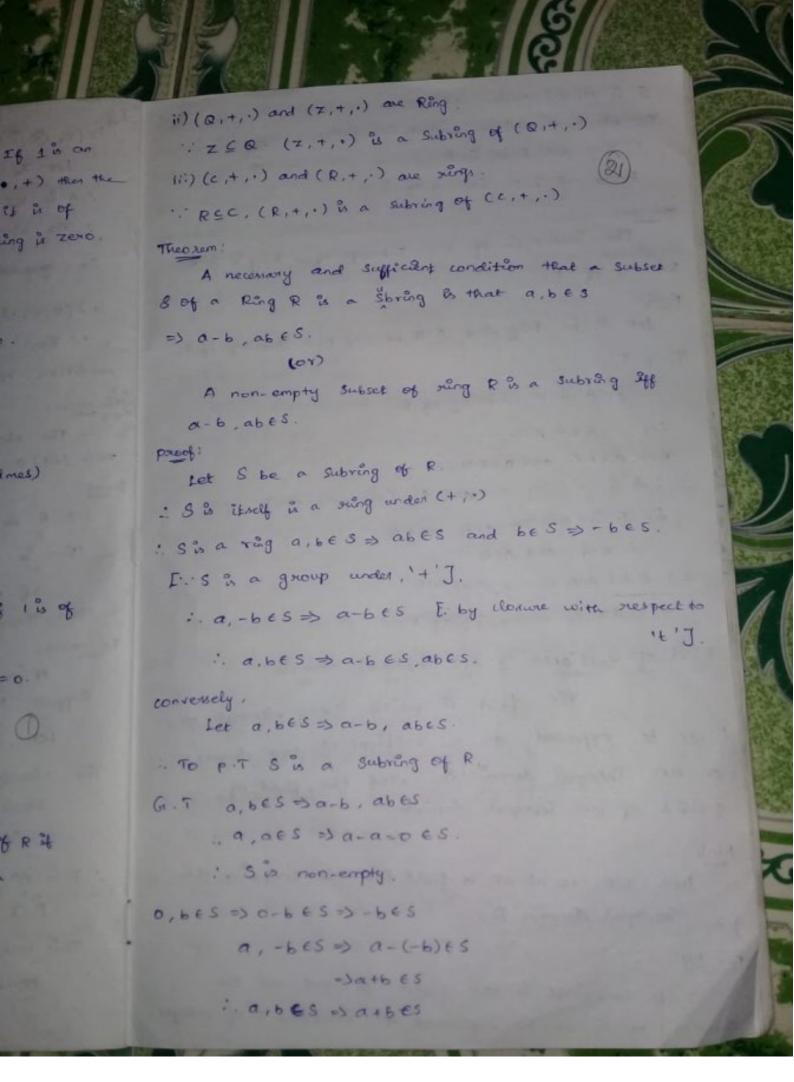
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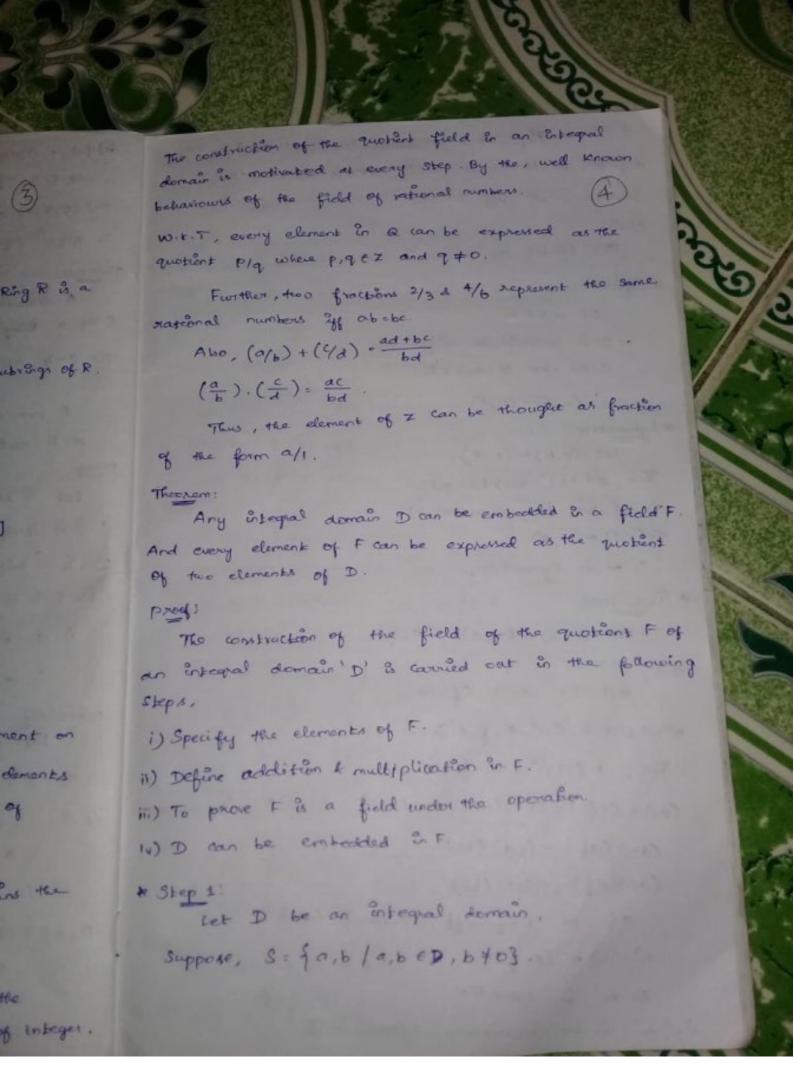
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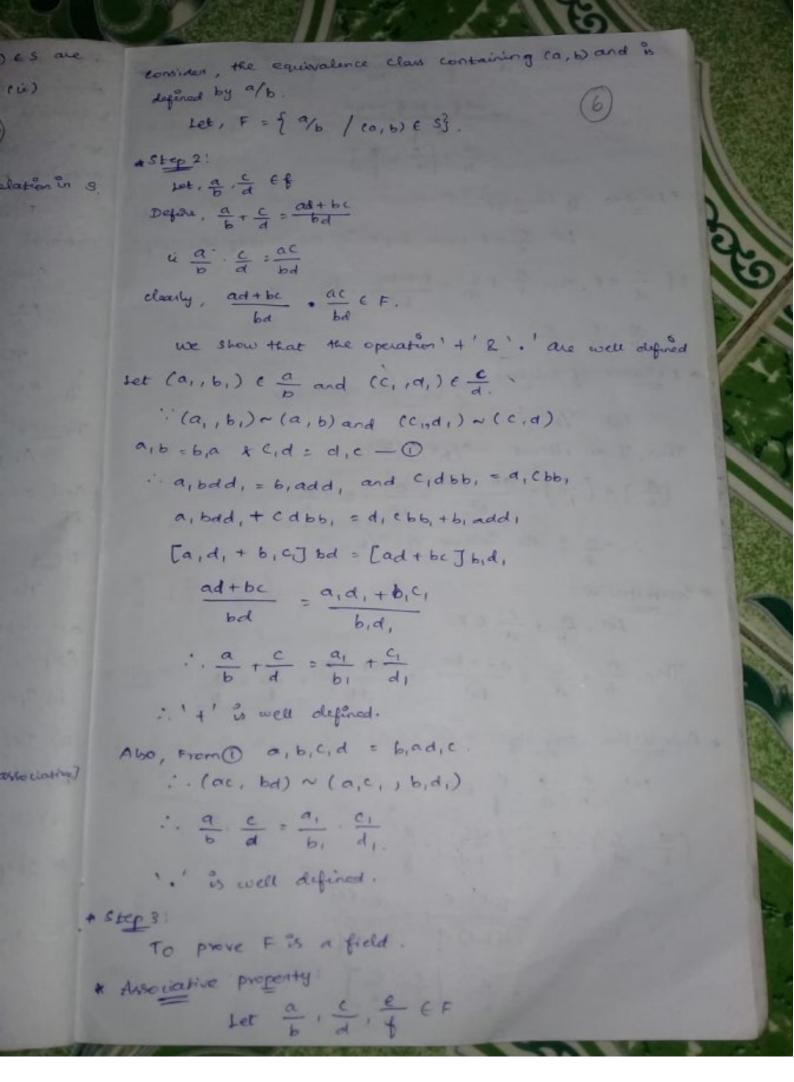
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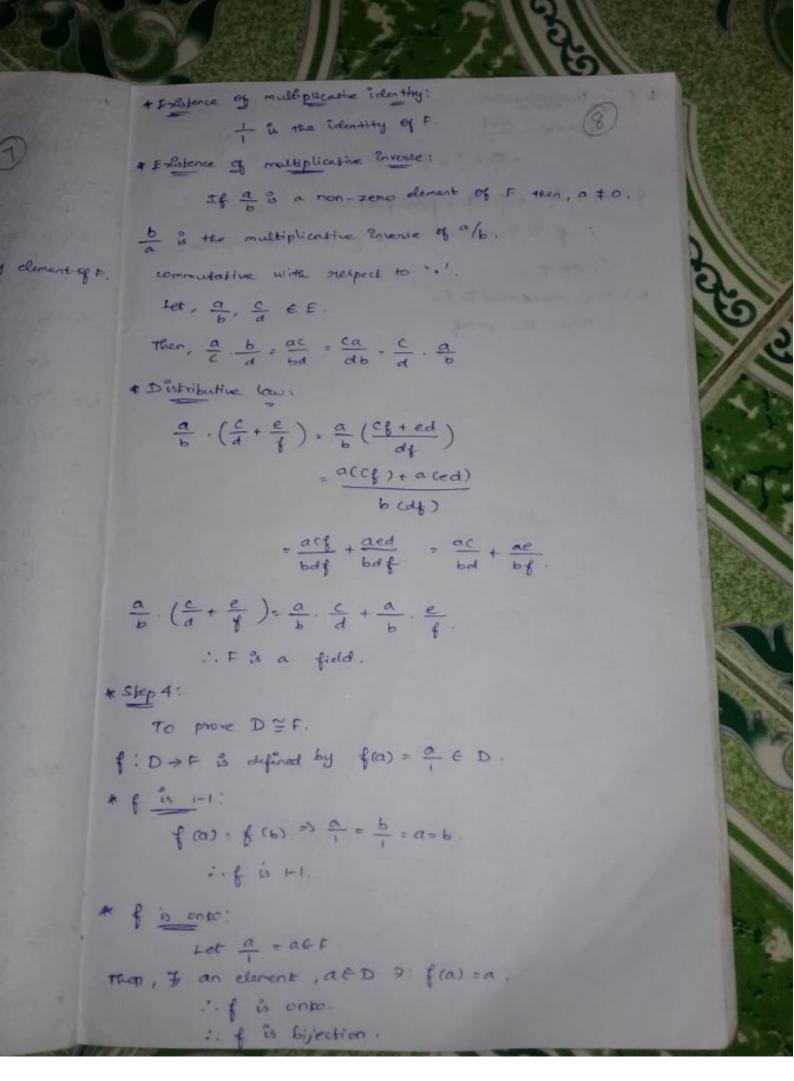
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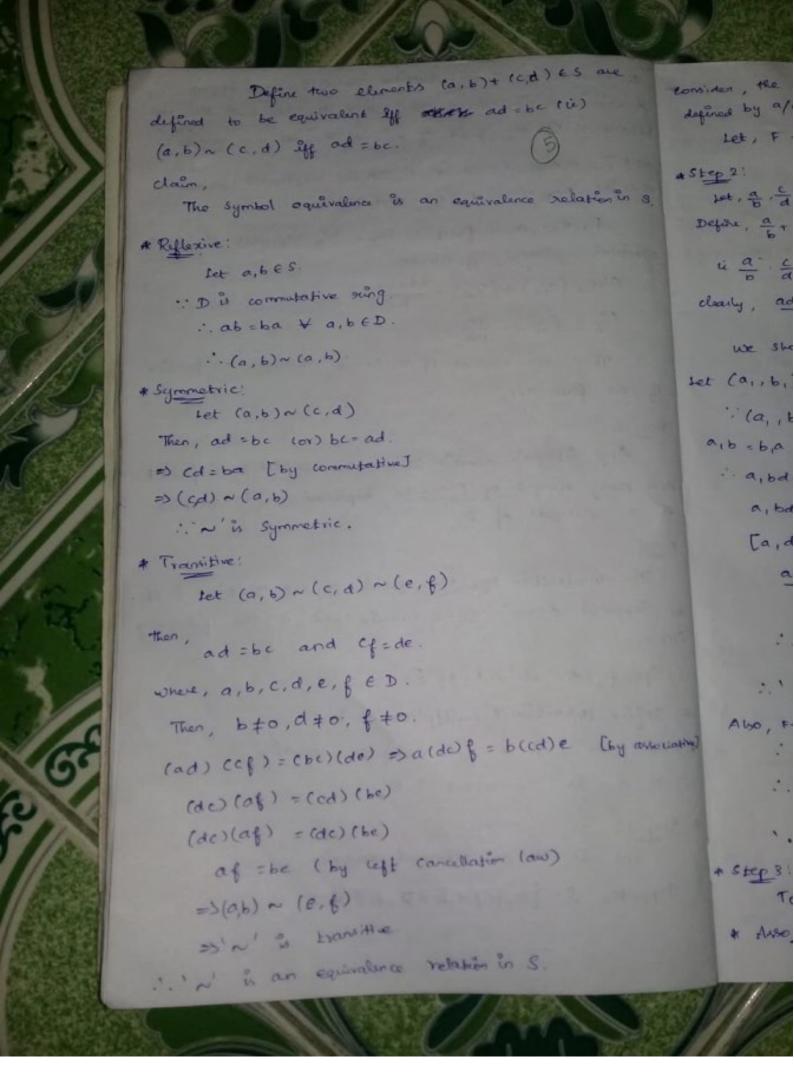


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The construction S is closed under addition domair is notin The other two laws, also satisfied. behaviours of . They are true in R. Hence, S is a Subring of R. W. K. T, every quotient Pla The intersection of two subrings of a Ring R is a FWITHET stateonal nu subtring of R. Also, (a Let R be Ring And A, B be any two subvings of R. (a).( To p.T Thus, And is a subring of R. of the fore Let, a, b & AOB Theorem: Then a, b & A and a, b & B. Ary 3 .. A a a ring a-b, abe A [by prev. thm] And every .. B is a ring a-b, abeB. of two el - , a - 6 , a b ∈ A ∩ B proof 3 ii) a, b & ANB => a-b, ab & ANB. The co .. And is a Subring of R. an integra Field of quotients of an integral domain: Steps, The field is which every element on i) Specife Fran be expressed as a quotient of two elements ii) Define on an integral domain is called the field of iii) To p quotient of an integral domain. 1W) D a Here, we construct a field F which contains the \* Step 1 given integral domain D'. Supp For eg I is contained in the field 'Q' and all the elements of a can be expressed as Quotient's of integer.





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[ A is dense in m iff A intersects with a cauchy every open ball. Thus, A is dense in M. flence A is a countable dense subset of M. red . : M is Separable. Hence proved. 3) p.T. any bdd Sequence in R has a Convergent Sub seq. 301: Let (2n) be a bold seq in R then Fo a closed interval [a, b] 3: xn & [a, b] Thus (an) is a seg in the compact m.s [a, b]. [ By Heine Bone I thm] Since [a, b] is compact it " has a convergent Subseq "is sequentially compact. By the defin of sequentially compact (2n) has a convergent to subseq. Hence proved.