Pair of Linear Equations in Two varibles Ex 3.11 Q21

Answer :

21. Let the money with first person be Rsx and the money with the second person be Rsy. Then,

$(x+100)=2(y-100)$

$(y+10)=6(x-10)$

If first person gives $Rs100$ to second person then the second person will become twice as rich as first person, According to the given condition, we have,

$(x+100)=2(y-100)$

$x+100=2y-200$

$x-2y+100+200=0$

$x-2y+300=0\cdots(i)$

if second person gives $Rs10$ to first person then the first person will becomes six times as rich as second person, According to given condition, we have,

$(y+10)=6(x-10)$

$y+10=6x-60$

$0=6x-60-y-10$

$0=6x-y-70\cdots(ii)$

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********** END **********