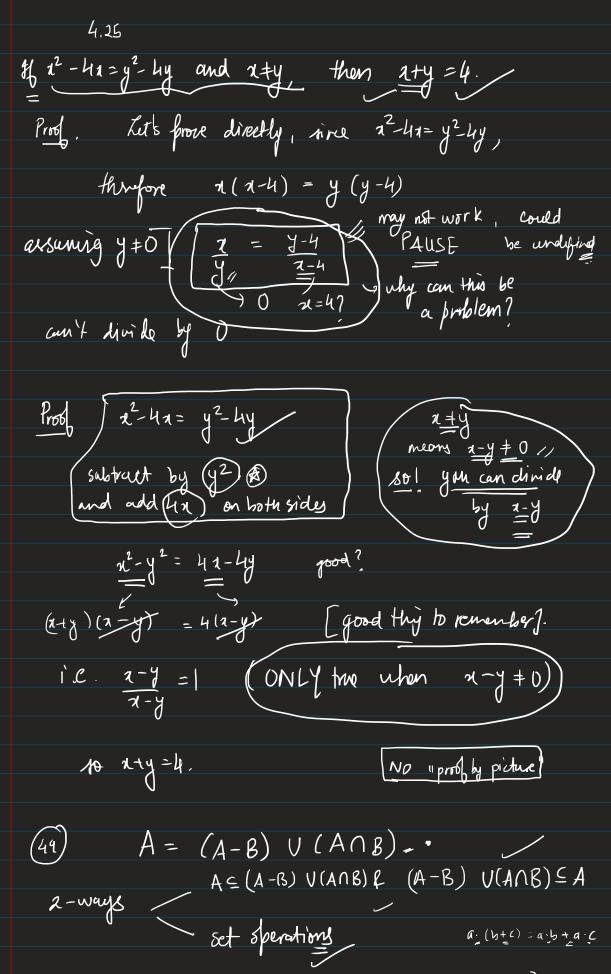
$$3^{3} \cdot 5^{2} - 4^{5} \cdot 0 | |^{24} = 3^{2} \cdot 3 \cdot 5^{2} \cdot 4^{4} \cdot 7 \cdot | |^{26} \cdot | |$$

$$= (3^{2} \cdot 5^{2} + 4^{4} \cdot | |^{26}) \cdot (3 \cdot 1 \cdot | |)$$

$$= (3 \cdot 5 + 2 \cdot | |^{13})^{2} \cdot (3 - 7 \cdot | |)$$

$$N^{2} \quad M$$



(1) $(A-B)V(A\cap B) = (A\cap \overline{B})V(A\cap B)$ = $A\cap \overline{A}(\overline{B}VB) = A\cap UA$

```
(2) \quad A \subseteq (A-B) \cup (A \cap B)
ab XEA, then to show 2EA-B or ZEANB
                            only & choices
  n even then a EA-B
             A=(A-B) V(ANB)
   76 (A-B) V(ANB) REA-B or REANB
                       2+A (and x+B) 2=A (and teB)
                Therfore (CEA)
     \egpiv
   Think = is = in mod world
\begin{cases} * a = \alpha & cquelity \\ * i| a = b , then b = \alpha \\ * i| a = b and b = C , then a = C \end{cases}
   \pi \left( a = a \mod n \right) \left( uhy ? \right)
                                     3= | mad 2 3= 1
     a=lo modn

n|a-b fr some ke Z

miens n divides a-b
       alors n divide 0? Yes 0=0.0
      a = a mad n/.
  x of a = b \mod n, then b = a \mod n
```

How? a = k·n+b i.e. a-b=k·n

6-a= (-k)n n/b-a

Bil a=b modn, b=c modn Then a= c modn, Direct Pros -> 000 a-b=k.n (- b - c = l.n. a-C=(k+l)·n na-c i.e.a=cmodnub Requalities AM 4 gebrukkid 61 M

with man geom man

AM & G M & HM

hormonic near $a+b \geqslant 4 \sqrt{ab}$ How to prove this? Jo show a+b-2 Jab > 0 MAIN $a + b - 2\sqrt{9} \cdot \sqrt{5}$ $(\sqrt{9} - \sqrt{6})^{2}$ $(\sqrt{9} - \sqrt{6})^{2} > 0 \qquad \sqrt{2} + \sqrt{2} - 2x$ SCRATCH Proof Since & (Ta-Tb) >0, 10 thus at 1, Tab 1 1 Threfore (5a)2+ (5)2-2 Ta. 5b 70; hence a+6-254670