

Answer to the Question:

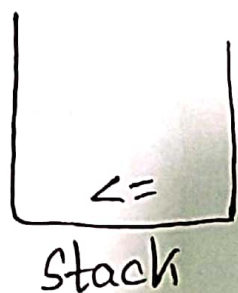
In-fix equation:

$$2 \leq 5 = [(x \neq 3 * 6) \&\& (1 \neq 8 / 5)] \neq 7 - 5 \neq$$

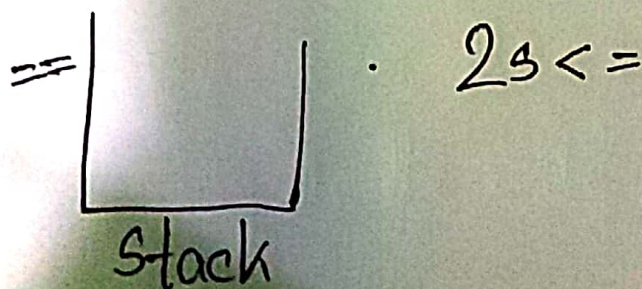
$$(5 + x \neq d)$$

Step-01:

2 5



as, ' $\leq$ ' has higher precedence, no popping out ' $\leq$ '



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Now pushing '==' in the stack

$$\boxed{==}$$

stack

Step 02:

stack == [ 7 ( ! = \* ) ]

$$20 \leftarrow 236 \div ! \setminus 281 = ! * 20 \times \Rightarrow 08$$

as we have found a closing bracket we the operators inside the bracket will be popped out

combining result for next step '!' can  
 next time two pop then '=' on '=' result  
 $20 \leftarrow 236 * ! =$

Step-03:

stack == [ 185 ( ! = / ) ]

$$20 \leftarrow 236 * ! = 185 / ! = 88$$



Step-04:

stack  $\boxed{==}$

$$20 <= 236 * != 185 / != 4475 - ==$$

stack  $\boxed{!=}$

as, ' $!=$ ' has not higher precedence than ' $==$ ' so ' $==$ ' will pop out and then ' $!=$ ' will be pushed.

stack  $\boxed{!=}$

$$20 <= 236 * != 185 / != 4475 - == ==$$

stack  $\boxed{!= (+)}$

$$20 <= 236 * != 185 / != 4475 - == == 5x$$

stack  $\boxed{! = (\cancel{! =})}$

$$20 < = 236 * ! 185 / ! = 4475 - == == 5x + d ! =$$

lastly,

20 stack  $\boxed{\phantom{! = (\cancel{! =})}}$

$$20 < = 236 * ! 185 / ! = 4475 - == == 5x + d ! = ! =$$