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| Program  3.2: | Let us understand the working of Pre-increment, Post-increment, Pre-decrement  and Post-decrement  a) Consider a scenario where, Boys are playing in the park and collecting and  removing the yellow balls in/from the bucket based on teacher’s  instruction. Let’s say there are already 10 Yellow balls present in a  bucket. Following is the sequence of the instructions given by the teacher  for adding/removing the balls.  i. Rajiv: ++ Yellow  ii. Preet: --Yellow  iii. Raj: Yellow++  iv. Ritul: Yellow—  **Expected Outcome:**  Fill up the data mentioned in below given table as per the output   |  |  |  | | --- | --- | --- | | Sr.NO | Instruction | Yellow | | 1 | Count Before Execution | 10 | | 2 | Count After Execution | 10 | |
| Algorithm: | **Step1**: Start  **Step2**: Declare Yellow=10  **Step3**: Calculate ++Yellow, --Yellow, Yellow++, Yellow--  **Step4**: Print value of Yellow after execution  **Step5**: End |
| Flowchart: | Print Yellow after execution  ++Yellow  --Yellow  Yellow++  Yellow--  Declare Yellow=10 |
| Code: |  |
| Output: |  |
| Program B | b) Consider another scenario where boys and girls both are asked to add/remove  Yellow and Pink balls from the bucket respectively. Currently there are 10 Yellow  balls in the bucket and 20 Pink balls.  Teacher has given the sequence of instructions as below for  adding/removing the balls.  Calculate = ++Yellow + Yellow++ + --Yellow + ++Pink - --Pink - --Pink  Get the count of Yellow and Pink balls after evaluating above given  scenario.  **Expected Outcome:**  Fill up the data mentioned in below given table as per the output received   |  |  |  |  | | --- | --- | --- | --- | | Sr.No | Instructions | Yellow | Pink | | 1 | Before execution |  |  | | 2 | After execution |  |  | |

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| --- | --- |
| Algorithm: | **Step1**: Start  **Step2**: Declare Yellow=10,Pink=20  **Step3**: calculate=(++Yellow)+(Yellow++)+(--Yellow)+(++Pink)-(--Pink)-(--Pink);  **Step4**: Print value of Yellow and Pink after execution  **Step5**: End |
| Flowchart: | Print Answer of calculation after execution  calculate=(++Yellow)+(Yellow++)+(--Yellow)+(++Pink)-(--Pink)-(--Pink);  Declare Yellow=10,Pink=20,calculate |
| Code: |  |
| Output: |  |
| Question  Answer? | Have you understood the working of Pre-increment, Post-increment,  Pre-decrement and Post-decrement?  Yes  Pre-increment: At first the value is incremented and then it is used in an  expression.  Post-increment: At first value is used in expression and then incremented.  Pre decrement: At first value is decremented and then used in an expression.  Post-decrement: At first value is used in expression and then decremented |