

→ Current bill Calculation

18) Read Units Used & Calculate Electricity charges

Unit Costs:

Cost Per Unit

| | | |
|---------|----------------------------------|-------------|
| 50 | → for first 50 units per unit | → [1 Rupee] |
| 51-150 | → for next 100 units per unit | → [2 Rupee] |
| 151-250 | → for next 100 units per unit | → [3 Rupee] |
| >250 | Anything above 250 unit per unit | → [5 Rupee] |

Calculate total bill amount?

A = 40 : → Cost: 40

#units in calculation

| | | | |
|----------|--------------------|-------------------------------|-----------|
| A = 70 : | First 50 Units | : → $50 \times 1 \Rightarrow$ | 50 |
| | for next 100 units | : → $20 \times 2 \Rightarrow$ | 40 |
| | | | <u>90</u> |

| | | | |
|----------|--------------------|-------------------------------|------------|
| A = 120? | First 50 units | : → $50 \times 1 \Rightarrow$ | 50 |
| | For next 100 units | : → $70 \times 2 \Rightarrow$ | 140 |
| | | | <u>190</u> |

$$A = 200$$

$$\text{From } 50 \text{ units} \longrightarrow 50 \times 1 \rightarrow 50$$

$$\text{For next 100 units} \longrightarrow 100 \times 2 \rightarrow 200$$

$$\text{For next 100 units} \longrightarrow 50 \times 3 \rightarrow 150$$

$$400$$

Slabs

Example

Final Ans

$$A < 50$$

$$A = 25 \longrightarrow \text{print}(25 \times 1)$$

$$A = 40 \longrightarrow \text{print}(40 \times 1)$$

$$A > 50 \text{ \& \& } A < 150 \quad A = 75 \longrightarrow 50 \times 1 + (A - 50) \times 2 \rightarrow 100$$

$$A = 100 \longrightarrow 50 \times 1 + (A - 50) \times 2 \rightarrow 150$$

$$A > 150 \text{ \& \& } A < 250 \quad A = 200 \longrightarrow 50 \times 1 + 100 \times 2 + (A - 150) \times 3 \rightarrow 400$$

$$A = 240 \longrightarrow 50 \times 1 + 100 \times 2 + (A - 150) \times 3 \rightarrow 520$$

$$A > 250$$

$$A = 270 \longrightarrow 50 \times 1 + 100 \times 2 + 100 \times 3 + (A - 250) \times 5 \rightarrow 650$$

\downarrow
 20

Q8): Print first 5 Natural Numbers output:

1
2
3
4
5

```
public static void main() {
```

```
    Sop(1)
```

```
    Sop(2)
```

```
    Sop(3)
```

```
    Sop(4)
```

```
    Sop(5)
```

```
}
```

```
    int n = 1;
```

or

```
    [ Sop(n) → 1  
      n = n + 1 // n = 2
```

```
    [ Sop(n) → 2  
      n = n + 1 // n = 3
```

```
    [ Sop(n) → 3  
      n = n + 1 // n = 4
```

```
    [ Sop(n) → 4  
      n = n + 1 // n = 5
```

```
    [ Sop(n) → 5  
      n = n + 1 // n = 6
```

loops: { while loop
 for loops

while loops

int n = 1; → ① Initialize loop variable

while (n <= 5) { → ② Condition on loop variable

```
    Sop(n)
```

```
    n = n + 1 → ③ updating loop variable
```

```
}
```

// Until while loop condition fails it will keep on iterating

Print first 7 natural numbers in reverse order?