

```

int main()
{
    int i, n, sum=0;
    printf("Enter an int:");
    scanf("%d", &n);
    i=1;

```

```

    while(i <= n)
    {
        sum = sum + i;
        i = i + 1;
    }
    printf("Sum = %d", sum);
    return 0;
}

```

~~6~~ ~~5~~ ~~4~~ ~~3~~ ~~2~~
~~6~~ ~~5~~ ~~4~~ ~~3~~ ~~2~~

a) $sum = 0 + 1 \Rightarrow 1 \checkmark$

b) $sum = 1 + 2 \Rightarrow 3 \checkmark$

c) $sum = 3 + 3 \Rightarrow 6 \checkmark$

d) $sum = 6 + 4 \Rightarrow 10 \checkmark$

e) $sum = 10 + 5 \Rightarrow 15 \checkmark$

```

int main()
{
    int n, sum = 0;

    printf("Enter an int:");
    scanf("%d", &n);

    while (n >= 1)
    {
        sum = sum + n;
        n = n - 1;
    }

    printf("Sum = %d", sum);
    return 0;
}

```

Enter an int: 5

Sum of even nos = 6

Sum of odd nos = 9

Using Shorthand and Incr/Decr Op

```

int main()
{
    int i = 1;
    while (i <= 10)
    {
        printf("%d\n", i);
        i = i + 1;
    }
    return 0;
}

```

Diagram illustrating shorthand and increment/decrement operations:

- `i = i + 1;` is boxed and has three arrows pointing to:
 - `i += 1;`
 - `i++;`
 - `++i;`

① $\boxed{a = a + b;}$

or
 $a \oplus = b;$

③ $b = b / q;$

or
 $b \oslash = q;$

② $x = x * y;$

or
 $x \otimes = y;$

④ $a = a + b + c;$

$a \oplus = b + c;$

+=	}	Shorthand op
-=		or
*=		Compound op
/=		or
%=		Arithmetic - Assignment

Unary Incr Op

int a=10;

a = a + 1;

printf("%d", a);

(a++)

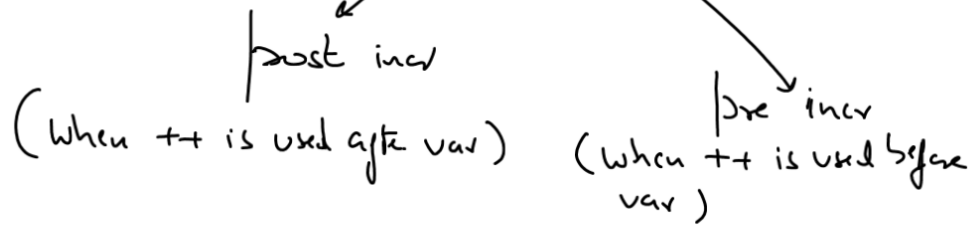
(++a)

post inc

pre inc

++

Unary Incr Op



int a, b=10;

2 11
a

10 11
b

a = ++b;

→ ++b;

→ a=b;

printf("%d %d", a, b);
11 11

a = b++;

→ a=b

→ b++;

2 10
a

10 11
b

printf("%d %d", a, b);
10 11

