a = ~~b~~ 30

b = 20

Assignment Operators

a = b ==

a += b => a = a + b;

a -= b => a = a - b;

a *= b a = a * b;

a /= b a = a / b;

a %= b a = a %. b;

Ques Magic Trick

$$\frac{2 \times (x + a) + b}{2} - x$$

$$\frac{2x + 2a + b}{2} - x$$

$$x + a + \frac{b}{2} - x$$

$$a + b/2$$

a = 10 b = 30

```
int x = 20;
x += a;
x *= 2;
x += 6;
x /= 2;
x -= 20;
syso(x);
```

x = ~~20~~ → ~~30~~ → ~~60~~ → ~~90~~ → ~~45~~ → 25

Ques n, Print even numbers 1 - n

DRY

↳ Don't Repeat Yourself

```
for(int i=1; i<=n; i++) {
    if(i%2==0) {
        syso(i);
    }
}
```

n = 5

i = 1 2 3 4 5 6

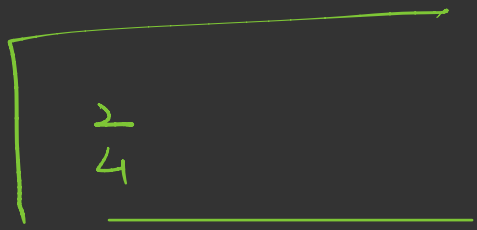
2
4

n = 5

2, 4, 6, 8, 10, 12, 14 . . . . .

i = 2 ~~4~~ 6

```
for(int i = 2; i <= n; i += 2) {
    syso(i);
}
```



Ques n = 4

n = 4

i = ~~1 2 3 4 5~~

```
for(int x = 1; x <= n; x++) {
    for(int i = 1; i <= n; i++) {
        System.out.print("*");
    }
    Syso()
}
```

* * * *

Ques n = 4

```
*
* *
* * *
* * * *
```

x = 4
n = 4

```
for(int x=1; x<=n ; x++) {
    for(int i=1; i<=x; i++) {
        syso(*);
    }
    syso();
}
```

Console

```
*
* *
* * *
```

Ques n = 4

```
    1  2  3  4
1   1
2   1  2
3   1  2  3
4   1  2  3  4
```