4 Approaches: Odd/Even Check – Code

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1 Bitwise AND Operator

Java:

```java
import java.util.Scanner;

public class OddEvenBitwise {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        if ((n & 1) == 1)
            System.out.println("Odd");
        else
            System.out.println("Even");
    }
}
```

C++:

```cpp
#include <iostream>
using namespace std;

int main() {
    int n;
    cin >> n;
    if (n & 1)
```

```cpp
        cout << "Odd" << endl;
    else
        cout << "Even" << endl;
    return 0;
}
```

Python:

```python
n = int(input())
if n & 1:
    print("Odd")
else:
    print("Even")
```

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2 Repeated Subtraction

Java:

```java
import java.util.Scanner;

public class OddEvenSubtract {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        while (n > 1) {
            n -= 2;
        }
        if (n == 0)
```

```java
            System.out.println("Even");
        else
            System.out.println("Odd");
    }
}
```

C++:

```cpp
#include <iostream>
using namespace std;

int main() {
    int n;
    cin >> n;
    while (n > 1) n -= 2;
    if (n == 0)
        cout << "Even" << endl;
    else
        cout << "Odd" << endl;
    return 0;
}
```

Python:

```python
n = int(input())
while n > 1:
    n -= 2
if n == 0:
    print("Even")
else:
    print("Odd")
```

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3 Division and Multiplication

Java:

```java
import java.util.Scanner;

public class OddEvenDivMul {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        if ((n / 2) * 2 == n)
            System.out.println("Even");
        else
            System.out.println("Odd");
    }
}
```

C++:

```cpp
#include <iostream>
using namespace std;

int main() {
    int n;
    cin >> n;
    if ((n / 2) * 2 == n)
        cout << "Even" << endl;
```

```cpp
    else
        cout << "Odd" << endl;
    return 0;
}
```

Python:

```python
n = int(input())
if (n // 2) * 2 == n:
    print("Even")
else:
    print("Odd")
```

4️⃣ Modulo Operator (%)

Java:

```java
import java.util.Scanner;

public class OddEvenModulo {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        System.out.println((n % 2 == 0) ? "Even" : "Odd");
    }
}
```

C++:

```cpp
#include <iostream>
using namespace std;

int main() {
    int n;
    cin >> n;
    cout << ((n % 2 == 0) ? "Even" : "Odd") << endl;
    return 0;
}
```

Python:

```python
n = int(input())
print("Even" if n % 2 == 0 else "Odd")
```