

```
def
```

```
odd_number_multiply_by_3_add_1(n):
```

```
    """
```

Checks if the input number is odd, and if so, multiplies it by 3 and adds 1.

Args:

n (int): The input number.

Returns:

int: The result of the operation if the number is odd, otherwise the original number.

```
    """
```

```
    if n % 2 != 0: # Check if the number is odd
```

```
        result = n * 3 + 1
```

```
        print(f"{n} is an odd number.
```

```
        Multiplying it by 3 and adding 1 gives {result}")
```

```
        return result
```

```
    else:
```

```
        print(f"{n} is an even number. No  
operation performed.")  
        return n
```

```
# Get user input
```

```
def get_user_input():  
    while True:  
        try:  
            n = int(input("Enter an integer: "))  
            return n  
        except ValueError:  
            print("Invalid input. Please enter an  
integer.")
```

```
# Main program
```

```
def main():  
    print("Odd Number Multiply by 3 and  
Add 1")
```

```
print("-----  
----")
```

```
    n = get_user_input()  
    result =
```

```
odd_number_multiply_by_3_add_1(n)  
    print(f"Final result: {result}")
```

```
# Run the main program
```

```
if __name__ == "__main__":  
    main()
```