# Gets a number from the user

```python
x = int(input("What's x?
"))
print(f"x is {x}"")
```
# Catches a ValueError

```python
try:
    x = int(input("What's x? "))
    print(f"x is {x}\n"
except ValueError:
    print("x is not an integer")
```
# Demonstrates a NameError

```python
try:
    x = int(input("What's x? "))
except ValueError:
    print("x is not an integer")
print(f"x is {x}")
```
# Demonstrates else

```python
try:
    x = int(input("What's x? "))
except ValueError:
    print("x is not an integer")
else:
    print(f"x is {x}"
```
# Adds a loop

```python
while True:
    try:
        x = int(input("What's x? "))
    except ValueError:
        print("x is not an integer")
    else:
        break
print(f"x is {x}"
```
# Adds functions, uses break and return

def main():
    x = get_int()
    print(f"x is {x}\")

def get_int():
    while True:
        try:
            x = int(input("What's x? "))
        except ValueError:
            print("x is not an integer")
        else:
            break
    return x

main()
# Removes break

def main():
    x = get_int()
    print(f"x is {x}\")

def get_int():
    while True:
        try:
            x = int(input("What's x? "))
        except ValueError:
            print("x is not an integer")
        else:
            return x

main()
# Removes else

def main():
    x = get_int()
    print(f"x is {x}\")

def get_int():
    while True:
        try:
            return int(input("What's x? \")
        except ValueError:
            print("x is not an integer")

main()
# Adds pass

def main():
    x = get_int()
    print(f"x is {x}"

def get_int():
    while True:
        try:
            return int(input("What's x? "))
        except ValueError:
            pass

main()
# Adds prompt

def main():
    x = get_int("What's x? ")
    print(f"x is {x}")

def get_int(prompt):
    while True:
        try:
            return int(input(prompt))
        except ValueError:
            pass

main()