
```
1 # Demonstrates conditionals
2
3 x = int(input("What's x? "))
4 y = int(input("What's y? "))
5
6 if x < y:
7     print("x is less than y")
8 if x > y:
9     print("x is greater than y")
10 if x == y:
11     print("x is equal to y")
```

```
1 # Demonstrates mutually exclusive conditions
2
3 x = int(input("What's x? "))
4 y = int(input("What's y? "))
5
6 if x < y:
7     print("x is less than y")
8 elif x > y:
9     print("x is greater than y")
10 elif x == y:
11     print("x is equal to y")
```

```
1 # Demonstrates fewer conditions
2
3 x = int(input("What's x? "))
4 y = int(input("What's y? "))
5
6 if x < y:
7     print("x is less than y")
8 elif x > y:
9     print("x is greater than y")
10 else:
11     print("x is equal to y")
```

```
1 # Demonstrates inequalities and logical operator
2
3 x = int(input("What's x? "))
4 y = int(input("What's y? "))
5
6 if x < y or x > y:
7     print("x is not equal to y")
8 else:
9     print("x is equal to y")
```

```
1 # Demonstrates equality
2
3 x = int(input("What's x? "))
4 y = int(input("What's y? "))
5
6 if x == y:
7     print("x is equal to y")
8 else:
9     print("x is not equal to y")
```

```
1 # Demonstrates inequality
2
3 x = int(input("What's x? "))
4 y = int(input("What's y? "))
5
6 if x != y:
7     print("x is not equal to y")
8 else:
9     print("x is equal to y")
```

```
1 # Demonstrates inequalities and logical operators
2
3 score = int(input("Score: "))
4
5 if score >= 90 and score <= 100:
6     print("Grade: A")
7 elif score >= 80 and score < 90:
8     print("Grade: B")
9 elif score >= 70 and score < 80:
10    print("Grade: C")
11 elif score >= 60 and score < 70:
12    print("Grade: D")
13 else:
14    print("Grade: F")
```

```
1 # Demonstrates inequalities and logical operators
2
3 score = int(input("Score: "))
4
5 if 90 <= score and score <= 100:
6     print("Grade: A")
7 elif 80 <= score and score < 90:
8     print("Grade: B")
9 elif 70 <= score and score < 80:
10    print("Grade: C")
11 elif 60 <= score and score < 70:
12    print("Grade: D")
13 else:
14    print("Grade: F")
```

```
1 # Demonstrates chained comparisons
2
3 score = int(input("Score: "))
4
5 if 90 <= score <= 100:
6     print("Grade: A")
7 elif 80 <= score < 90:
8     print("Grade: B")
9 elif 70 <= score < 80:
10    print("Grade: C")
11 elif 60 <= score < 70:
12    print("Grade: D")
13 else:
14    print("Grade: F")
```

```
1 # Demonstrates fewer comparisons
2
3 score = int(input("Score: "))
4
5 if score >= 90:
6     print("Grade: A")
7 elif score >= 80:
8     print("Grade: B")
9 elif score >= 70:
10    print("Grade: C")
11 elif score >= 60:
12    print("Grade: D")
13 else:
14    print("Grade: F")
```

```
1 # Compares strings
2
3 answer = input("Do you agree? ")
4 if answer == "yes":
5     print("Agreed")
6 else:
7     print("Not agreed")
```

```
1 # Strips string before comparing
2
3 answer = input("Do you agree? ").strip()
4 if answer == "yes":
5     print("Agreed")
6 else:
7     print("Not agreed")
```

```
1 # Lowercases string before comparing
2
3 answer = input("Do you agree? ").strip().lower()
4 if answer == "yes":
5     print("Agreed")
6 else:
7     print("Not agreed")
```

```
1 # Compares multiple strings
2
3 answer = input("Do you agree? ").strip().lower()
4 if answer == "yes" or answer == "y":
5     print("Agreed")
6 else:
7     print("Not agreed")
```

```
1 # Compares multiple strings
2
3 answer = input("Do you agree? ").strip().lower()
4 if answer.startswith("y"):
5     print("Agreed")
6 else:
7     print("Not agreed")
```

```
1 # Demonstrates modulo operator
2
3 x = int(input("What's x? "))
4
5 if x % 2 == 0:
6     print("Even")
7 else:
8     print("Odd")
```



```
1 # Demonstrates a function that returns a bool
2
3
4 def main():
5     x = int(input("What's x? "))
6     if is_even(x):
7         print("Even")
8     else:
9         print("Odd")
10
11
12 def is_even(n):
13     if n % 2 == 0:
14         return True
15     else:
16         return False
17
18
19 main()
```

```
1 # Demonstrates conditional expressions (ternary operators)
2
3
4 def main():
5     x = int(input("What's x? "))
6     if is_even(x):
7         print("Even")
8     else:
9         print("Odd")
10
11
12 def is_even(n):
13     return True if n % 2 == 0 else False
14
15
16 main()
```

```
1 # Demonstrates returning the value of a Boolean expression
2
3
4 def main():
5     x = int(input("What's x? "))
6     if is_even(x):
7         print("Even")
8     else:
9         print("Odd")
10
11
12 def is_even(n):
13     return n % 2 == 0
14
15
16 main()
```

```
1 # Compares multiple strings with if/elif/else
2
3 name = input("What's your name? ")
4
5 if name == "Harry":
6     print("Gryffindor")
7 elif name == "Hermione":
8     print("Gryffindor")
9 elif name == "Ron":
10    print("Gryffindor")
11 elif name == "Draco":
12    print("Slytherin")
13 else:
14    print("Who?")
```

```
1 # Uses or
2
3 name = input("What's your name? ")
4
5 if name == "Harry" or name == "Hermione" or name == "Ron":
6     print("Gryffindor")
7 elif name == "Draco":
8     print("Slytherin")
9 else:
10    print("Who?")
```

```
1 # Uses match with case
2
3 name = input("What's your name? ")
4
5 match name:
6     case "Harry":
7         print("Gryffindor")
8     case "Hermione":
9         print("Gryffindor")
10    case "Ron":
11        print("Gryffindor")
12    case "Draco":
13        print("Slytherin")
14    case _:
15        print("Who?")
```

```
1 # Uses |
2
3 name = input("What's your name? ")
4
5 match name:
6     case "Harry" | "Hermione" | "Ron":
7         print("Gryffindor")
8     case "Draco":
9         print("Slytherin")
10    case _:
11        print("Who?")
```