```
LEAP YEAR
year = int(input("Enter a year: "))
if (year \% 4 == 0 and year \% 100 != 0) or (year \% 400 == 0):
  print(f"{year} is a leap year.")
else:
  print(f"{year} is not a leap year.")
COUNT VOWELS
word = input("Enter a word: ").lower()
vowels = 'aeiou'
count = 0
for char in word:
  if char in vowels:
    count += 1
print(f"The word contains {count} vowels.")
NAMES STARTING WITH 'A'
names = [input("Enter a name: ") for _ in range(6)]
names_starting_with_a = [name for name in names if name.lower().startswith('a')]
print("Names starting with 'a':", names_starting_with_a)
PROGRAM TO PROCESS EVEN AND ODD
numbers = [int(input("Enter an integer: ")) for _ in range(10)]
for num in numbers:
  if num % 2 == 0:
```

```
print(f"{num} squared is {num ** 2}")
else:
    print(f"{num} cubed is {num ** 3}")

COST OF ORDERING ROSES
numbers = [int(input("Enter an integer: ")) for _ in range(10)]

for num in numbers:
    if num % 2 == 0:
        print(f"{num} squared is {num ** 2}")
    else:
        print(f"{num} cubed is {num ** 3}")
```