def show_output(number):
    if number >= 30 and number < 60:
        print("A")
        number = number - 10
    else:
        print("B")
        number = number + 10
    if number % 9 == 0:
        print("C")
        number = number - 10
    else:
        print("D")
        number = number + 10
    print(number)

def main():
    show_output(30)
main()
Complete the function

- Complete the `add_bonus()` function which prints "Good job!" and returns 30000 plus the salary if the parameter is a value greater than 150000. Otherwise it prints "Excellent performance!" and returns 300 plus the salary.

```python
def add_bonus(salary):

def main():
    salary = 34000
    new_salary = add_bonus(salary)
    print("old salary: $" + str(salary))
    print("new salary: $" + str(new_salary))
    print()
    salary = 250000
    new_salary = add_bonus(salary)
    print("old salary: $" + str(salary))
    print("new salary: $" + str(new_salary))
main()
```

Superb performance!
old salary: $34000
new salary: $34300

Good job!
old salary: $250000
new salary: $280000
def show_output(x, y, z):
    if x == 5 or y > 5:
        if x > 4 and z == 8:
            print("A ")
        else:
            if y == 6 and z >= x:
                print("B ")
            else:
                print("C ")
    else:
        print("D ")

def main():
    show_output(4, 6, 8)

main()
Complete the function

Complete the `compare_nums1()` function which is passed two integers and returns a string. The function compares the first number to the second number and returns one of the following three strings (i.e., the string which is applicable):

"equal to" OR "less than" OR "greater than"

```python
def compare_nums1(            ):

def main():
    num1 = random.randrange(1, 100)
    num2 = random.randrange(1, 100)
    comparison = compare_nums1(num1, num2)
    print(num1, "is", comparison, num2)

main()
```

85 is greater than 21
64 is equal to 64
16 is less than 86
Complete the function

- Complete the `compare_nums2()` function which is passed two integers and returns a string. The function compares the first number to the second number and returns one of the following three strings (i.e., the string which is applicable):
  
<table>
<thead>
<tr>
<th>&quot;equal to&quot;</th>
<th>OR</th>
<th>&quot;less than&quot;</th>
<th>OR</th>
<th>&quot;greater than&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;equal to&quot;</td>
<td>OR</td>
<td>&quot;less than&quot;</td>
<td>OR</td>
<td>&quot;greater than&quot;</td>
</tr>
</tbody>
</table>

```python
def compare_nums2(            ):

def main():
    num1 = random.randrange(1, 100)
    num2 = random.randrange(1, 100)
    comparison = compare_nums2(num1, num2)
    print(num1, "is", comparison, num2)
main()
```

Use an if...elif to write the code

- 16 is less than 86
- 64 is equal to 64
- 85 is greater than 21
A year is a leap year if it is divisible by 400, or 'divisible by 4 but not divisible by 100', e.g., 1900, 2011 and 2100 are not a leap years whereas 2000, 2008 and 2400 are leap years. Complete the is_leap_year() function:

```python
def is_leap_year(year):

def main():
    print(is_leap_year(1900))
    print(is_leap_year(2011))
    print(is_leap_year(2100))
    print(is_leap_year(2000))
    print(is_leap_year(2008))
    print(is_leap_year(2400))
main()
```

```
If statements – exercise

- Complete the get_random_horoscope() function which returns a random message. The function has 4 chances in 10 of returning "Amazing day ahead", 3 chances in 10 of returning "Romance is very likely", 1 chance in 10 of returning "Proceed with caution" and 2 chances in 10 of returning "Lucky lucky you"

```python
def get_random_horoscope():
    message1 = "Amazing day ahead"
    message2 = "Romance is very likely"
    message3 = "Proceed with caution"
    message4 = "Lucky lucky you"

    return random.choice([message1, message2, message3, message4])

def main():
    print("Today's message:", get_random_horoscope())
    print("Today's message:", get_random_horoscope())

main()
```

Today's message: Romance is very likely
Today's message: Amazing day ahead