

<code>print(5==5.0 or 10 and 5 or 5==5.0 and 7!=7.0)</code>	
<code>print(10*4+5**2**2/10)</code>	
<code>print(7 and 0 or 5 and 3 or 7/0)</code>	
<code>a=3</code> <code>print("5" if a&gt;2 else "8")</code>	
<code>print(10/(1*3/6))</code>	
<code>print(5 and False or 3/0)</code>	
<code>print(5 and True or 3/0)</code>	
<code>print("1" in "123" and "False" or True)</code>	
<code>print(7*5**2/True*False)</code>	
<code>a="kavit"</code> <code>sum=0</code> <code>if a:</code> <code>sum+=10</code> <code>a=8</code> <code>if a!=10:</code> <code>sum+=5</code> <code>a=7</code> <code>elif a==8:</code> <code>sum+=3</code> <code>else:</code> <code>sum+=7</code> <code>print(sum)</code>	
<code>print(True and False or None)</code>	
<code>print(None and False)</code>	
<code>print(bool(None))</code>	
<code>a=5</code> <code>p=7</code> <code>a+=p</code> <code>a-=p</code> <code>p*=a</code> <code>p/=a</code> <code>print(p)</code> <code>print(a)</code>	
<code>age=18</code> <code>print("adult" if age&gt; 18 else "child")</code>	
What is the output of this expression, <code>3**1**3/True?</code>	
<code>sum=0</code> <code>if 5==5.0:</code> <code>sum+=10</code> <code>if 5==False:</code> <code>sum+=3</code> <code>elif 5==True:</code> <code>sum+=5</code> <code>else:</code> <code>sum+=9</code> <code>print(sum)</code>	
<code>new= (1 and "True") and ('False' or Train)</code> <code>str= 'This statement is '+ new</code> <code>print("This is False" if "False" in new else "This is True")</code>	

1. Calculate the number of basic American coins given a value less than 1 dollar. A penny is worth 1 cent, a nickel is worth 5 cents, a dime is worth 10 cents, and a quarter is worth 25 cents. It takes 100 cents to make 1 dollar. So given an amount less than 1 dollar (if using floats, convert to integers for this exercise), calculate the number of each type of coin necessary to achieve the amount, maximizing the number of larger denomination coins. For example, given \$0.76, or 76 cents, the correct output would be “3 quarters 1 penny.” Output such as “76 pennies” and “2 quarters 2 dimes 1 nickel 1 penny” are not acceptable.

2.. The Hardy-Ramanujan number, also known as **1729**, is the smallest number that can be expressed as the sum of two cubes in two different ways. It is named after mathematicians **G.H. Hardy** and **Srinivasa Ramanujan**.

The story behind it goes like this: Hardy was visiting Ramanujan in the hospital, and during their conversation, Hardy mentioned that the taxi he arrived in had the rather dull number 1729. To this, Ramanujan replied that 1729 is actually a very interesting number because it can be expressed as the sum of two cubes in two distinct ways:

- $1729 = 1^3 + 12^3$
- $1729 = 9^3 + 10^3$

Thus, 1729 is often referred to as the **Hardy-Ramanujan number** or a **taxicab number**.