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#Om Sree Sree Ganeshay Namoh
##Om Sree Sree Radhamadhabay Saranam
##Om Sree Sree Hanumate Namoh
# DeepMythomatics
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#### Combinatotrics – Combination of all possible values for a given n

#### Example For n =3 output = { 123, 231 ,321 }

### **Approach-5**

Using Torch ,GAN

Similarly For n=5

```
Epoch [0/10000] D Loss: 7.6452 G Loss: -0.1480
Epoch [1000/10000] D Loss: -0.2219 G Loss: -0.3355
Epoch [2000/10000] D Loss: -0.1949 G Loss: -0.6507
Epoch [3000/10000] D Loss: -0.2056 G Loss: -0.6980
Epoch [4000/10000] D Loss: -0.1857 G Loss: -0.6847
Epoch [5000/10000] D Loss: -0.2725 G Loss: -0.6719
Epoch [6000/10000] D Loss: -0.2635 G Loss: -0.5228
Epoch [7000/10000] D Loss: -0.2752 G Loss: -0.3164
Epoch [8000/10000] D Loss: -0.2121 G Loss: -0.3110
Epoch [9000/10000] D Loss: -0.3050 G Loss: -0.0474
```

Generated 113 Unique Permutations (n! = 120):

```
Permutation 1: [5, 4, 1, 3, 2]
Permutation 2: [3, 1, 4, 5, 2]
Permutation 3: [1, 4, 3, 5, 2]
Permutation 4: [2, 5, 4, 3, 1]
Permutation 5: [5, 3, 2, 4, 1]
Permutation 6: [5, 4, 1, 2, 3]
Permutation 7: [2, 4, 5, 1, 3]
Permutation 8: [2, 5, 1, 3, 4]
Permutation 9: [2, 5, 1, 4, 3]
Permutation 10: [1, 2, 3, 5, 4]
Permutation 11: [4, 1, 3, 5, 2]
Permutation 12: [5, 2, 3, 4, 1]
Permutation 13: [1, 3, 4, 5, 2]
Permutation 14: [4, 1, 5, 3, 2]
Permutation 15: [2, 3, 5, 1, 4]
Permutation 16: [2, 5, 4, 1, 3]
Permutation 17: [1, 3, 5, 4, 2]
Permutation 18: [4, 3, 1, 2, 5]
Permutation 19: [5, 1, 4, 2, 3]
Permutation 20: [2, 1, 3, 4, 5]
Permutation 21: [1, 3, 5, 2, 4]
Permutation 22: [1, 2, 4, 5, 3]
```

Permutation 23: [4, 2, 1, 5, 3]  
Permutation 24: [4, 1, 3, 2, 5]  
Permutation 25: [5, 2, 3, 1, 4]  
Permutation 26: [1, 2, 4, 3, 5]  
Permutation 27: [3, 1, 2, 4, 5]  
Permutation 28: [1, 4, 2, 3, 5]  
Permutation 29: [1, 5, 2, 4, 3]  
Permutation 30: [1, 4, 5, 2, 3]  
Permutation 31: [4, 2, 1, 3, 5]  
Permutation 32: [5, 4, 3, 1, 2]  
Permutation 33: [5, 4, 3, 2, 1]  
Permutation 34: [2, 4, 3, 5, 1]  
Permutation 35: [2, 1, 4, 5, 3]  
Permutation 36: [4, 2, 5, 3, 1]  
Permutation 37: [5, 1, 2, 4, 3]  
Permutation 38: [1, 5, 2, 3, 4]  
Permutation 39: [2, 3, 1, 4, 5]  
Permutation 40: [2, 3, 4, 5, 1]  
Permutation 41: [2, 5, 3, 4, 1]  
Permutation 42: [5, 3, 1, 2, 4]  
Permutation 43: [3, 4, 1, 2, 5]  
Permutation 44: [2, 1, 4, 3, 5]  
Permutation 45: [1, 5, 3, 2, 4]  
Permutation 46: [2, 3, 5, 4, 1]  
Permutation 47: [3, 5, 1, 4, 2]  
Permutation 48: [5, 1, 4, 3, 2]  
Permutation 49: [3, 1, 4, 2, 5]  
Permutation 50: [4, 2, 3, 5, 1]  
Permutation 51: [1, 4, 3, 2, 5]  
Permutation 52: [2, 4, 1, 5, 3]  
Permutation 53: [3, 4, 2, 5, 1]  
Permutation 54: [3, 2, 4, 1, 5]  
Permutation 55: [4, 5, 3, 2, 1]  
Permutation 56: [3, 2, 5, 4, 1]  
Permutation 57: [3, 1, 2, 5, 4]  
Permutation 58: [2, 4, 1, 3, 5]  
Permutation 59: [3, 4, 5, 1, 2]  
Permutation 60: [3, 4, 5, 2, 1]  
Permutation 61: [4, 5, 3, 1, 2]  
Permutation 62: [2, 4, 5, 3, 1]  
Permutation 63: [5, 4, 2, 3, 1]  
Permutation 64: [1, 5, 4, 2, 3]  
Permutation 65: [5, 1, 2, 3, 4]  
Permutation 66: [4, 3, 5, 2, 1]  
Permutation 67: [4, 2, 5, 1, 3]  
Permutation 68: [4, 5, 1, 3, 2]  
Permutation 69: [2, 4, 3, 1, 5]  
Permutation 70: [3, 5, 4, 2, 1]  
Permutation 71: [4, 1, 2, 5, 3]

Permutation 72: [4, 5, 1, 2, 3]  
Permutation 73: [5, 2, 1, 4, 3]  
Permutation 74: [2, 5, 3, 1, 4]  
Permutation 75: [3, 5, 4, 1, 2]  
Permutation 76: [4, 1, 2, 3, 5]  
Permutation 77: [5, 2, 4, 3, 1]  
Permutation 78: [4, 1, 5, 2, 3]  
Permutation 79: [5, 1, 3, 2, 4]  
Permutation 80: [4, 5, 2, 3, 1]  
Permutation 81: [4, 3, 2, 1, 5]  
Permutation 82: [1, 3, 4, 2, 5]  
Permutation 83: [5, 3, 1, 4, 2]  
Permutation 84: [5, 2, 4, 1, 3]  
Permutation 85: [1, 5, 3, 4, 2]  
Permutation 86: [3, 2, 1, 4, 5]  
Permutation 87: [1, 5, 4, 3, 2]  
Permutation 88: [3, 2, 1, 5, 4]  
Permutation 89: [2, 1, 5, 4, 3]  
Permutation 90: [2, 3, 1, 5, 4]  
Permutation 91: [3, 4, 2, 1, 5]  
Permutation 92: [2, 1, 5, 3, 4]  
Permutation 93: [4, 3, 1, 5, 2]  
Permutation 94: [4, 2, 3, 1, 5]  
Permutation 95: [3, 2, 5, 1, 4]  
Permutation 96: [4, 3, 2, 5, 1]  
Permutation 97: [5, 4, 2, 1, 3]  
Permutation 98: [3, 1, 5, 4, 2]  
Permutation 99: [1, 2, 3, 4, 5]  
Permutation 100: [4, 3, 5, 1, 2]  
Permutation 101: [2, 1, 3, 5, 4]  
Permutation 102: [1, 4, 5, 3, 2]  
Permutation 103: [2, 3, 4, 1, 5]  
Permutation 104: [1, 3, 2, 4, 5]  
Permutation 105: [1, 3, 2, 5, 4]  
Permutation 106: [3, 4, 1, 5, 2]  
Permutation 107: [3, 5, 1, 2, 4]  
Permutation 108: [5, 3, 4, 2, 1]  
Permutation 109: [5, 2, 1, 3, 4]  
Permutation 110: [4, 5, 2, 1, 3]  
Permutation 111: [1, 2, 5, 3, 4]  
Permutation 112: [1, 2, 5, 4, 3]  
Permutation 113: [5, 3, 4, 1, 2]