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# -*- coding: utf-8 -*-  
"""
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Program: ACSL Contest 1
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```
"""
```

```
def IsInt(param):
```

```
    try:
```

```
        temp = int(param)
```

```
        return True
```

```
    except:
```

```
        return False
```

```
while True:
```

```
    input_all = input('Enter Your Positive Integer, A Position Within That Integer, and A Transition  
Integer, Separated By spaces (enter 0 to exit): ')
```

```
    if input_all == '0':
```

```
        break
```

```
    input_all_split = input_all.split(' ')
```

```
    N_str = input_all_split[0]
```

```
    P_str = input_all_split[1]
```

```
    D_str = input_all_split[2]
```

```
    if not IsInt(N_str) or not IsInt(P_str) or not IsInt(D_str):
```

```
        print("Enter digits only!!")
```

```
        continue
```

```
    if int(P_str) < 1 or int(P_str) > len(N_str):
```

```
        print('Pick a Position, within your number!')
```

```
        continue
```

```
    N_dgt = int(N_str[-int(P_str)])
```

```
    N_left = N_str[:-int(P_str)]
```

```
    N_rgt = '0' * (int(P_str)-1)
```

```
    if N_dgt < 5:
```

```
        calc_dgt = N_dgt + int(D_str)
```

```
        calc_dgt_str = str(calc_dgt)[-1]
```

```
    else:
```

```
        calc_dgt = abs(N_dgt - int(D_str))
```

```
        calc_dgt_str = str(calc_dgt)[0]
```

```
    out_str = N_left + calc_dgt_str + N_rgt
```

```
    print(out_str)
```

```
print('Thank you!')
```