

Paper Coding Worksheet

Chapter:	1
Unit:	1
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unit 1

paper coding

(@1)

$\rightarrow z_1 \rightarrow \downarrow z_2 \leftarrow \leftarrow z_2 \downarrow \rightarrow z_2 \rightarrow$

(@2)

img 1

$\rightarrow \downarrow z_2 \rightarrow \uparrow z_2 \rightarrow z_1 \rightarrow \downarrow z_1$

img 2

$z_1 \rightarrow \downarrow z_2 \rightarrow \downarrow z_2 \rightarrow \downarrow z_1$

img 3

$z_2 \downarrow z_2 \downarrow z_2 \rightarrow z_2 \downarrow z_2$

img 4

$\rightarrow z_2 \downarrow z_2 \rightarrow z_1 \rightarrow z_2 \downarrow z_2 \downarrow z_2 \downarrow z_2$

img 5

$\rightarrow \rightarrow \rightarrow z_2 \downarrow \leftarrow z_2 \downarrow \leftarrow z_2 \downarrow \leftarrow z_2$

img 6

$\rightarrow z_2 \rightarrow z_2 \rightarrow z_2 \downarrow z_2 \leftarrow z_2 \downarrow z_2 \rightarrow z_1 \downarrow z_2 \rightarrow z_2$

Unit 2

"Go straight west at this crossroads. You will see four buildings. When you see the

post office, turn right across the post office.

```
In [ ]: obtain current_location  
  
        print "Go straight west at the crossroads"  
  
        repeat  
            determine buildings  
        until post_office is seen  
  
        print "Turn right across the post office"  
  
        print "Go straight"  
  
        determine building_count as 0  
  
        repeat  
            determine next_building  
        until Italian_restaurant is seen  
  
        compute hotel_found as true  
  
        if hotel_found is true then  
            print "The third building is the hotel you are looking for"  
        else  
            print "Hotel not found"  
        end if
```

```
In [ ]: #unit 3  
#q1  
print( int("50")+50 )  
print( "50" + str(50) )
```

100
5050

```
In [ ]: #q2  
print(int('1'+'0'+'0'+'0'))
```

1000

```
In [ ]: #unit 4  
  
#q1  
width=30  
height=60  
area=width*height  
print("Area of rectangle :",area)
```

Area of rectangle : 1800

```
In [ ]: #q2  
base= 3  
perpendicular= 4
```

```
h = (base**2 + perpendicular**2)**0.5
print("Hypotenuse =",h)
```

Hypotenuse = 5.0

In []: #unit 5

```
#q1
n = int(input("Enter an Integer: "))

if n % 2 == 1:
    print("Is the integer odd?: True")
else:
    print("Is the integer odd?: False")
```

Enter an Integer: 20
Is the integer odd?: False

In []: #q1 (diff output check)
n = int(input("Enter an Integer: "))

```
if n % 2 == 1:
    print("Is the integer odd?: True")
else:
    print("Is the integer odd?: False")
```

Enter an Integer: 21
Is the integer odd?: True

In []: #q2
n = int(input("Enter an integer: "))

```
if n % 2 == 0 and 0 <= n <= 100:
    print("Is the input an even integer between 0 and 100? True")
else:
    print("Is the input an even integer between 0 and 100? False")
```

Enter an integer: 12
Is the input an even integer between 0 and 100? True

In []: #unit 6
#q1

```
game_score = int(input("Enter game score: "))

if game_score > 1000:
    print("game_score=",game_score)
    print("You are a master.")
else:
    print("game_score=",game_score)
```

Enter game score: 1500
game_score= 1500
You are a master.

In []: #q2

```
x = int(input("Enter an integer betn -100 and 100:"))
print("x=",x)

if x > 0:
    print(x,"is a natural number")
```

```
Enter an integer betn -100 and 100:50
x= 50
50 is a natural number
```

```
In [ ]: #unit 7
```

```
#q1
letter = input("Enter a letter: ").lower()

if letter in ['a', 'e', 'i', 'o', 'u']:
    print(letter,"It is a vowel")
else:
    print(letter,"It is a consonant")
```

```
Enter a letter: k
k It is a consonant
```

```
In [ ]: #q2
```

```
a = int(input("Enter a: "))
b = int(input("Enter b: "))

if a % b == 0:
    print(a,"is a multiple of ",b)
else:
    print(a,"is not a multiple of ",b)
```

```
Enter a: 30
Enter b: 3
30 is a multiple of  3
```

```
In [ ]: #unit 8
```

```
#q1
bts = ['V', 'J-Hope', 'RM', 'Jungkook', 'Jin', 'Jimin', 'Suga']

for member in bts:
    print(member)
```

```
V
J-Hope
RM
Jungkook
Jin
Jimin
Suga
```

```
In [ ]: #q2
```

```
total = 0
for i in range(1, 101):
```

```
    total += i
print("Sum of integers from 1 to 100:", total)
```

Sum of integers from 1 to 100: 5050

```
In [ ]: #q3
even_sum= 0

for i in range(0, 101, 2):
    even_sum += i
print("Sum of even numbers from 1 to 100:", even_sum)
```

Sum of even numbers from 1 to 100: 2550

```
In [ ]: #q4
odd = 0

for i in range(1, 101, 2):
    odd += i

print("Sum of odd numbers from 1 to 100:", odd)
```

Sum of odd numbers from 1 to 100: 2500

```
In [ ]: #unit 9

#q1
i = 1
while i <= 10:
    print("2 x", i, "=", 2 * i)
    i += 1
```

2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20

```
In [ ]: #q2
x=1
while x<=10:
    i = 1
    while i <= 9:
        print(x, "x", i, "=", x * i)
        i += 1

    x += 1
```

1 x 1 = 1
1 x 2 = 2
1 x 3 = 3
1 x 4 = 4
1 x 5 = 5
1 x 6 = 6
1 x 7 = 7
1 x 8 = 8
1 x 9 = 9
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
3 x 1 = 3
3 x 2 = 6
3 x 3 = 9
3 x 4 = 12
3 x 5 = 15
3 x 6 = 18
3 x 7 = 21
3 x 8 = 24
3 x 9 = 27
4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20
4 x 6 = 24
4 x 7 = 28
4 x 8 = 32
4 x 9 = 36
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
6 x 1 = 6
6 x 2 = 12
6 x 3 = 18
6 x 4 = 24
6 x 5 = 30
6 x 6 = 36
6 x 7 = 42
6 x 8 = 48
6 x 9 = 54

7 x 1 = 7
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35
7 x 6 = 42
7 x 7 = 49
7 x 8 = 56
7 x 9 = 63
8 x 1 = 8
8 x 2 = 16
8 x 3 = 24
8 x 4 = 32
8 x 5 = 40
8 x 6 = 48
8 x 7 = 56
8 x 8 = 64
8 x 9 = 72
9 x 1 = 9
9 x 2 = 18
9 x 3 = 27
9 x 4 = 36
9 x 5 = 45
9 x 6 = 54
9 x 7 = 63
9 x 8 = 72
9 x 9 = 81
10 x 1 = 10
10 x 2 = 20
10 x 3 = 30
10 x 4 = 40
10 x 5 = 50
10 x 6 = 60
10 x 7 = 70
10 x 8 = 80
10 x 9 = 90