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ADVANCED PROGRAMMING LAB

LAB FILE

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GROUP 1

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S. No.	Date	Description
1 .	28.07.2020	Basic Arithmetic , Swap , Simple Interest , Print and Cat, Area of circle, triangle area , reverse of digits .

LAB - 1

Ques 1 . All the basic arithmetic operation .

```
a <- 20
b <- 10
print(a+b)
print(a-b)
print(a*b)
print(a/b)
```

```
> a <- 20
> b <- 10
> print(a+b)
[1] 30
> print(a-b)
[1] 10
> print(a*b)
[1] 200
> print(a/b)
[1] 2
>
```

Ques 2 . Use of Print and Cat .

```
> print("gautam vijay")
[1] "gautam vijay"
> cat("gautam vijay")
gautam vijay
>
```

Ques 3. Performing square , cube and modulus opearation on a number.

```
> 2 ** 10
[1] 1024
> 10 %% 3
[1] 1
> 3 ** 2
[1] 9
> 3 ** 3
[1] 27
>
```

Ques 4. Swap 2 numbers using two method .

```
1  a <- 23
2  b <- 32
3
4  c <- a
5  a <- b
6  b <- c
7
8  cat(a,b)
9
10 a <- a + b
11 b <- a - b
12 a <- a - b
13
14 cat(a,b)
```

11:12 (Top Level)

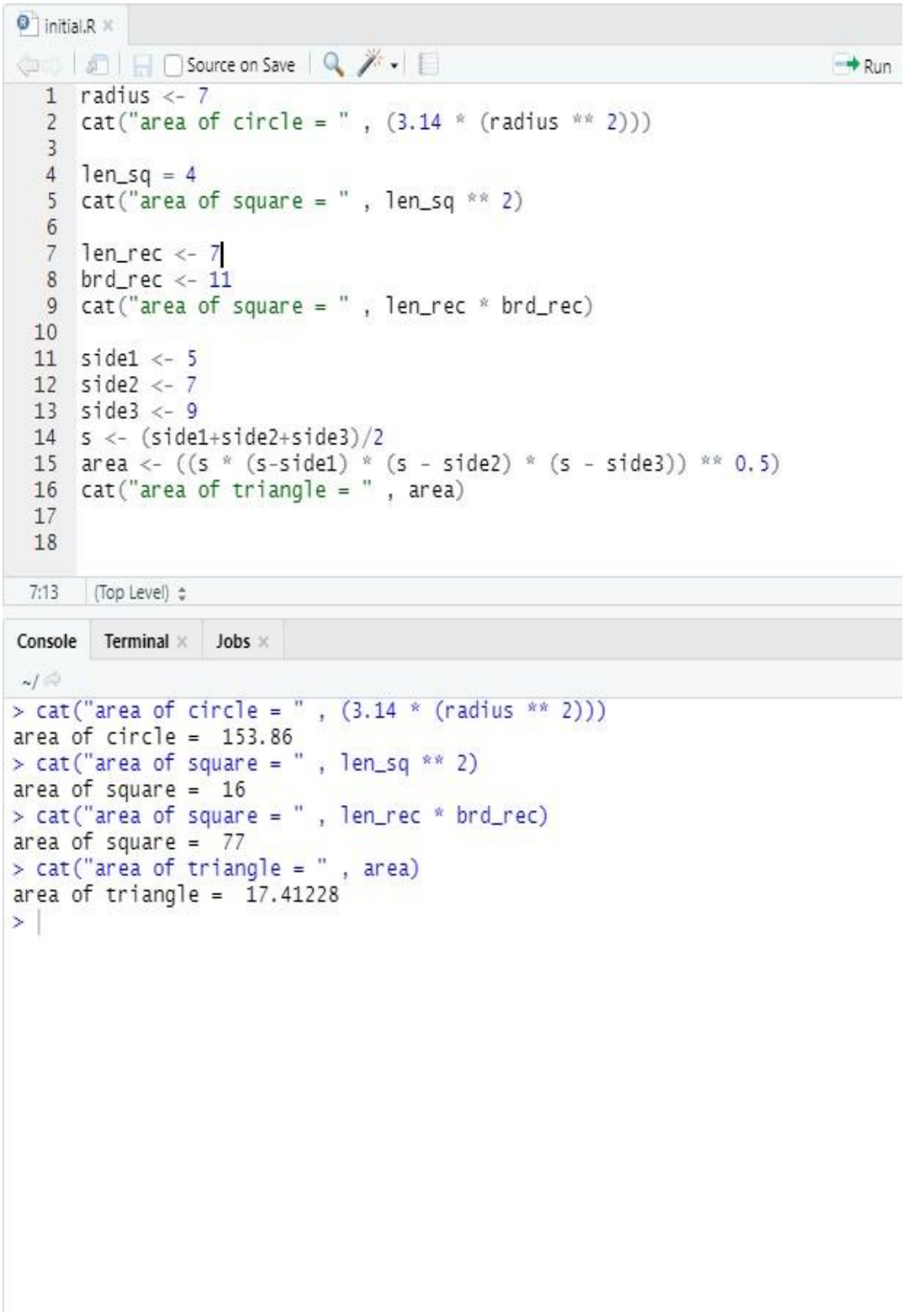
Console Terminal Jobs

~/

```
> a <- 23
> b <- 32
>
> c <- a
> a <- b
> b <- c
>
> cat(a,b)
32 23>
> a <- a + b
> b <- a - b
> a <- a - b
>
> cat(a,b)
23 32
>
```

Ques 5 . Display simple interest with required variables.

Ques 6. Display area of triangle , rectangle , square and circle with required variables .



Ques 7. Display the reverse of a five digit number . (no conditional or loop statements)

```
number <- 12345
pow <- 1
reverse <- 0
pow <- pow *10
reverse <- reverse * 10 + (number %% pow) %/% (pow / 10)
pow <- pow *10
reverse <- reverse * 10 + (number %% pow) %/% (pow / 10)
pow <- pow *10
reverse <- reverse * 10 + (number %% pow) %/% (pow / 10)
pow <- pow *10
reverse <- reverse * 10 + (number %% pow) %/% (pow / 10)
pow <- pow *10
reverse <- reverse * 10 + (number %% pow) %/% (pow / 10)
print(reverse)
```

39:15 (Top Level)

Console Terminal Jobs

~/

```
> number <- 12345
> pow <- 1
> reverse <- 0
> pow <- pow *10
> reverse <- reverse * 10 + (number %% pow) %/% (pow / 10)
> pow <- pow *10
> reverse <- reverse * 10 + (number %% pow) %/% (pow / 10)
> pow <- pow *10
> reverse <- reverse * 10 + (number %% pow) %/% (pow / 10)
> pow <- pow *10
> reverse <- reverse * 10 + (number %% pow) %/% (pow / 10)
> pow <- pow *10
> reverse <- reverse * 10 + (number %% pow) %/% (pow / 10)
> print(reverse)
[1] 54321
>
```