HW_2

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```
#1 Calculate the square root of 36 using R.
sqrt(36)
```

```
## [1] 6
```

```
#2 Create two vectors called
# vec1 with the numbers 1, 7, 10, 14, 21.
# vec2 with the numbers 14, 2, 9, 21, 26.

vec1<-c(1,7,10,14,21)

vec2<-c(14,2,9,21,26)

#1. Concatenate using c() the two vectors to get a new vector vec.
vecc<-c(vec1, vec2)
#2. Use the function which to find the index or indices of the element(s) in the vector vec with the va
indeces<-which(vecc==21)
which(vecc==21)
```

```
## [1] 5 9
```

```
#3. Use the function seq to obtain the first, third, fifth, seventh, and ninth elements of the vector v
vecc<-seq(1,9,3)
#4. Print out all the elements of vec except the third element.
vecc[-c(3)]
```

```
## [1] 1 4
```

```
#5. Print out all the elements of vec that are less than 20.
which(vecc<20)
```

```
## [1] 1 2 3
```

```
#6. Print out all the odd numbers in vec using the function mod.
vecc<-vecc[vecc %% 2 !=0]
??mod
#7. Add the vectors vec1 and vec2.
vec1+vec2
```

```
## [1] 15  9 19 35 47
```

```
#8. Multiply vec1 with vec2 (element-wise multiplication).
vec1^vec2
```

```
## [1] 1.000000e+00 4.900000e+01 1.000000e+09 1.171356e+24 2.386172e+34
```

```
#9. Multiply the vector vec1 with 23.
vec1^23
```

```
## [1] 1.000000e+00 2.736875e+19 1.000000e+23 2.295857e+26 2.576581e+30
```

```
#10. Divide vec1 by vec1 and show the result (element-wise division). Use the operator / to do the divi
print(vec1/vec2)
```

```
## [1] 0.07142857 3.50000000 1.11111111 0.66666667 0.80769231
```

```
#3Create a sequence using seq that goes from 25 to 45 so that you obtain numbers in steps of 2: 25,27, 
seq(25,45,2)
```

```
##  [1] 25 27 29 31 33 35 37 39 41 43 45
```

```
#4 Use the function rep to produce 20 instances of 10.

rep(x=20, times=10)
```

```
##  [1] 20 20 20 20 20 20 20 20 20 20
```

```
#5 Use the function rep to produce five instances each of the numbers 4,5,6.

rep(c(4,5,6), times=5)
```

```
##  [1] 4 5 6 4 5 6 4 5 6 4 5 6 4 5 6
```