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1. In a hypothetical language,if
   7– 5 + 2 * 1 = 2
   3– 0 + 4 * 2 = 4
   9– 2 + 1 * 5 = 1
   2– 6 + 3 * 4 = 4
   1– 3 + 2 * 5 = 5
   4– 6 + 4 * 9 = 9
   What is **5 – 2 + 7 * 0 =** ?

a.) 8	b.) 7
c.) 2	d.) 0

2. In a hypothetical language,which among the choices is a**POSSIBLE** output of the code below:

```
var x = 0
function getData() {
  x = x + 1
  return x
}
if ( getData() > 0 || getData() < 10) {
  print(x)
}
```

a.) No output	b.) 0
c.) 2	d.) None of the above

3. Given the data below, which expression filters the list using standard SQLwhere clause to show 5 year old girls with a cold or a headache?

Name	Age	Gender	Condition
Jose Lapilez	10	M	Cold
Maria Tengson	5	F	Headache
Joanne Benitez	4	F	Cold
Teresa Hilahil	3	F	None

a.) **Age** = 5 and **Gender**= Girl and **Condition** = 'Cold' or **Condition** ='Headache'	b.) **Age** = 5 and **Gender**= Girl or**Condition** = 'Cold' and **Condition** ='Headache'
c.) **Age** = 5 and **Gender**= Girl and **Condition** = 'Cold' and**Condition** ='Headache'	d.) None of the above

4. Given the data below, which expression best describes the data below?

Name	Age	Gender	Condition
Jose Lapilez	7	M	Cold
Maria Tengson	8	F	Headache
Ramon Nestor	3	M	Runny Nose
Teresa Hilahil	5	F	None

a.) **Age**<= 7 and **Gender**<> 'F'	b.) **Age**<= 7 and **Condition**<> 'N/A'
c.) **Age**>= 3 and **Gender**<> 'M'	d.) **Age**>= 3 or **Condition**<>'N/A'

5. The two pseudo codes below attempts to find the index of a number (**n**) from a very large sorted list/array (**L**) in ascending order. Which of the following statement is true?

Code 1:

```
function find(n,L,start,end) {
vari = start
while(i<=end) {
if (n == L[i]) {
return i
}
i = i + 1
}
return -1
}
```

Code 2:

```
function find(n,L,start,end) {
var length = end-start
vari = start + length/2
  if (start>end) {
     return -1
} else if (start==end) {
if (n==L[i]) {
      return i
    } else {
      return -1
    }
  } else if (n == L[i]){
     return i
  } else if (n > L[i]) {
     return find(n,L,i+1,end)
  } else {
     return find(n,L,start,i-1)
  }
}
```

a.) Code 1 is correct and runs faster than Code 2	b.) Code 1 is incorrect
c.) Code2 is correct and runs faster than Code 1	d.) Code2 is incorrect

6. What is the output of the pseudo code below?

```
vari = 0
while(i<10) {
i = i + 1
  if ( i % 2 == 0) {
print (i + 1)
  }
}
```

Output:

7. What is the output of the pseudo code below?

```
vari = 0
while(i< 10) {
i = i + 1
print (i)
  if (2 * i == i + i) {
    break;
  }
}
```

Output:

8. What is the output of the pseudo code below?

```
x = 1000
while(x > 0) {
  print(x % 10)
  x = Math.floor(x/10)
}
```

Output:

9. What is the output of the pseudo code below assuming that the charAt function is zero-based?

```
var s = "HelloWorld!!!=)"
vari = 0
while(i + 1<s.length()) {
  if (s.charAt(i) <>s.charAt(i+1)) {
    print(s.charAt(i))
  }
i=i+1
}
```

Output:

10. What is the output of the pseudo code below?

```
varn = 5
for i = 1 to n {
  for j = 1 to n-i {
    print("")
  }
  for k = 1 to i {
    print("X")
  }
  print("\n")
}
```

Output: