UTKARSH GUPTA
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7CSE-8Y

ARTIFICIAL INTELLIGENCE

Module 1, Quiz - 2

```
  BASE
+ BALL
-------
 GAMES
```

← Question 7

	B	A	S	E
	7	4	8	3
+	7	4	5	5

G	A	M	E	S
1	4	9	3	8

$E + L = S$ — (1)

$E + L = S + 10$ — (2)

$E = S + S - L + 10$

$S + L = E$

$S + L = S - L + 10$

$2L = 10$

$L = 5$

$S - E = S$

combinations

$(5,0) \rightarrow X$

$(6,*1) \rightarrow X$

~~(7,2)~~
(8,3)
(9,4)
] X

$B + B = A + carry$

$B \rightarrow 5\ X$

6
7
9
]

~~Let,~~

~~S, A = 7, 2~~

$B = 6$

$B + 6 = 12$ — X A, C

Let. S, A = 8, 3

$B = 7,\ A = 4,\ E = 3$

Question 8 →

```
  L E T
+ L E E
-------
  A L L
```

let E = 5

↓

```
  L 5 T
  L 5 5
-------
  A L L
```

Since 5 + 5 = 0

L maybe 0 or 1

L = 0/1

let L = 0,

```
  0 5 T
  0 5 5
-------
  A 0 0
```

T + 5 = 0

T = 5, but T ≠ 5 because E = 5

let L = 1,

```
  1 5 T
  1 5 5
-------
  A 1 1
```

∴ L ≠ 0 & L = 1

T = 6

If T = 6,

```
  1 5 6
  1 5 5
-------
  A 1 1
```

∴ from this,

A = 3

∴ L = 1

E = 5

T = 6

A = 3