

problem 1:

- 1: start
- 2: set name<-'Internship'
- 3: print name
- 4: Add '2025' to the beginning of name
- 5: print name
- 6: Goto step 2 and continue till you print name(internship) 5 times.
- 7: stop

Solution:

- 1: start
- 2: Internship
- 3: Internship
- 4: 2025 Internship
- 5: 2025 Internship
- 6: 2025 internship
- 7: 2025 Internship
- 8: 2025 Internship
- 9: 2025 Internship

Problem 2:

- 1: start
- 2: Set numberToCheck <- 1001001001001, 12345567891, 559922932941
- 3: Remove the last digit
- 4: From the last digit multiply each digit by 2
- 5: Take each of the products derived and add them together
- 6: Reduce the number until you get a single digit
- 7: Check if the calculated value is equal to the last digit from Step 3
- 8: Decide if the number is valid (If the value is equal, the number is valid. Otherwise it is invalid)
- 9: Print the validity
- 10: stop

Solution:

1: start

2: numberToCheck<-1001001001001,12345567891,559922932941

3: 559922932941

4: 559922932941*2

5: 10 10 18 18 4 4 18 6 4 18 6 4 18 8 2

5 5 9 9 2 2 9 3 2 9 4 1

6:60

7:6

8:if(6==559922932941)

9:invalid

10:6

11:stop

Problem 3:

1:start

2: Set max <- 0

3: Take a number from the input

4: Check if number is greater than max, if it is, set max <- number

5: Goto Step 3, until all given numbers are exhausted

6: Print max

7: Stop

Solution:

1: start

2: max<-0

3: 2 3 4

4: 2>0 then max<-2

5:3 checks until 4

6: 4

7:stop

Problem 5:algorithm to multiply two 4digit numbers.computer knows nothing about multiplication and only addition.

Solution:

Problem 6: how will you teach your computer to find the GCD

Solution: GCD is the largest number that divides both a and b without leaving a remainder.

We are taking a as 56 and b as 98.

1. we are starting with the smaller number, 56 is the smaller of 56 and 98, so I am taking the number as 56 and assuming 56 with variable name Num as 56.

2.I have to check whether Num divides both a and b value evenly means by dividing need to get the remainder as 0.

3. $56 \% 56 = 0$ (remainder is 0), so $56 \% 56$ divides 56

556 evenly.

4. $98\%56=42$ (remainder is 42), so 56 does **not** divide 98 evenly.

5. So, 56 does not divide both numbers evenly, we move to the next step.

6. Now we have to reduce the Num value by 1 means we have to reduce the Num value 56 to 55.

7.Now Num value is 55.

8. Now we have to check whether 55 divides both 56 and 98 divides evenly.

9. $56\%55=1$ (remainder is 11), so $55\%55$ does **not** divide $56\%56$ evenly.

10. We don't need to check 98%5598%55 because 5555 already fails for 5656.

11. Now the Num value is again reduced by 1 and the Num becomes 54.

12. Continue this process, reducing Num by 1 each time, until we find a number that divides both $56\%56$ and $98\%98$ evenly.

13. When Num=14;

14. $56\%14=0$ (remainder is 00), so 14 divides 56 evenly.

15. $98\%14=098\%14=0$ (remainder is 00), so 14 divides 9898 evenly.

16. Since 1414 divides both numbers evenly, we stop here.

17. The GCD is 14.

Problem 7: morse code. instead of .s and -s replaced with ; and :

Eg: :: ;;; ;;; :: ;;; ;:: :: decrypt it

Solution: 1: start

2: let $.s=$; and $-s=$:

3: .S-S -S.S.S.S .S-S.S .S-S .S.S.S.S .S-S -S-S

4: stop

Problem 8:your computer needs to start 5000 degree certificates from srm university in reverse alphabetical order.how will you teach your computer to do this.