

Q1 Prime Numbers:

- 1) Ask the user to input a number n
- 2) Set i to 0
- 3) Repeat this algorithm until $i \leq n$
- 4) & set i to $i+1$.
- 5) If $n \bmod i = 0$ then the number is not prime
- 6) If $n \bmod i \neq 0$ then number is prime.

Q2 Days.

- 1) Ask the user to input a number n between 1 and 365.
- 2) Assume that January 1st is a Monday.
- 3) Divide n by 7.
- 4) If $\text{num} \% 7 = 0$, the day is Sunday.
- 5) If $\text{num} \% 7 = 1$, the day is Monday.
- 6) If $\text{num} \% 7 = 2$, the day is Tuesday.
- 7) If $\text{num} \% 7 = 3$, the day is Wednesday.
- 8) If $\text{num} \% 7 = 4$, the day is Thursday.
- 9) If $\text{num} \% 7 = 5$, the day is Friday.
- 10) If $\text{num} \% 7 = 6$, the day is Saturday.

Q. Find the smallest number among three given variables.

1. START
2. INPUT x, y, z .
3. IF $x < y$ AND $x < z$ THEN
4. PRINT x " is the smallest."
5. ELSEIF $y < x$ AND $y < z$ THEN
6. PRINT y " is the smallest."
7. ELSE PRINT z " is the smallest."
8. ENDIF
9. END.

Q. Basic Calculator:

1. START
2. INPUT x, y
3. INPUT operator
4. IF $y \neq 0$ THEN
5. IF operator = "*" THEN
6. $ans = x * y$
7. PRINT ans
8. ELSEIF operator = "/" THEN
9. $ans = x / y$
10. PRINT ans
11. ELSE PRINT "Invalid operator"
12. ENDIF
13. ELSE PRINT "Add a non-zero number"
14. ENDIF
15. END