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| Question 1 **PSEUDOCODE** |
| Start  Set num1, num2, num3 as integer  Num1 = smallest  Compare num1 with num2  If num2 < num1  Then num2 = smallest  End if  Now compare num3 with num2  If num3 < num2  Then result num3 = smallest  Print / output = smallest integer  End |

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| Question 3 **PSEUDOCODE** |
| 1. Start 2. Set num1 3. Insert operator (\*, /) 4. Set num2 5. If the operator is “/” and num2 = 0 6. Then print invalid or undefined 7. Else (num1 / num2) 8. If the operator is “x or \*” 9. Then result = num1 \* num2 10. End |

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| Question 1 **ALGORITHM** |
| Here is a simple algorithm to determine if a number is prime:   1. Input: A positive integer n. 2. If n <= 1, return False. (Numbers less than or equal to 1 are not prime.) 3. If n == 2, return True. (2 is the smallest and only even prime number.) 4. If n is even (i.e., n % 2 == 0), return False. (Even numbers greater than 2 are not prime.) 5. For each integer i from 3 to the square root of n (inclusive), incrementing by 2: 6. If n % i == 0, return False. (If n is divisible by any number other than 1 and itself, it's not prime.) 7. Return True. (If no divisors are found, n is prime.) |

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| Question 2 **ALGORITHM** |
| 1. Input the day number between 1 and 365 2. Calculate the day of the week:   The number of days in week is 7 so (Monday =0, Tuesday =1, Wednesday=2,Thursday=3,Friday=4,Saturday=5,Sunday=6)   1. The number of day can be determine by (number of day -1) mod 7 2. Output the day of week and print day name. |

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| Question 3 **ALGORITHM** |
| 1. Input two positive integers, num1 and num2 2. Calculate the remainder of num1 by num2 (‘r= num1/num2’) 3. Now input the value of num2 in place of num1 and value of r to num2   It will continue until num2 becomes 0   1. When num2 is 0 the value of num1 is the gcd of the two original number |

Is it labeled?

Receive packages

**Start**

no

Send or return to sender

yes

**Is the package fragile?**

Scan the package and save it to spread sheet

Move to fragile items sorting section

yes

no

Is the package urgent?

Continue to next step

**Mark the package standard delivery**

no

yes

**Sort package on delivery type and load package onto delivery vehicle**.

**Mark the package for priority delivery or urgent delivery.**

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**Hand over the package, obtain a signature and receive cash.**

Leave a delivery attempt notice and return to the centre.

**Is the recipient available?**

**Deliver package to the recipient**

yes no

***END***

Invalid option prompt for re-entry

Check the selected product is available

Select product from given options

**Start**

If no

if yes

Calculate the total amount inserted is sufficient or not

**Ask the user to insert coins or bills**

Proceed to payment

Ask user to insert remaining money

If not

If Yes

If change is due, return the bill or coin to user.

Dispense the product from machine and calculate any change due

Proceed to dispensing.

Yes

No

**END**

If change is not due, dispense the product.