

1.	<p><b>Define recursive functions that calculate and return:</b></p> <p><b>a) Factorial of a number</b></p> <p><b>b) <math>a^b</math></b></p> <p><b>c) <math>n^{\text{th}}</math> Fibonacci number</b></p> <p><b>Hint:</b></p> <p><b>a) <math>n! = n * (n-1)!</math></b></p> <p><b>b) <math>a^b = a * a^{b-1}</math></b></p> <p><b>c) Each Fibonacci number is the addition of previous two Fibonacci numbers</b></p>
2.	<p><b>Consider you are travelling by air from Source S to Destination D. In between there is a single stop at a city C. If the duration of each flight is given along with the duration of the stop-over, calculate the total journey time. The time must be given in hours and minutes.</b></p> <p><u>Sample input/output:</u></p> <p>Enter duration of flight 1 (from S to C)</p> <p>5 20</p> <p>Enter duration of flight 2(from C to D)</p> <p>3 51</p> <p>Enter duration of layover</p> <p>4 30</p> <p>Total journey time is:</p> <p>13 hours 41 minutes</p>