# Homework 2 Packet switching and routers

1. Data are sent across a network using a method called packet switching.  
   1. Explain what is meant by the term ‘packet switching’. [3]
   2. A packet contains a header and a trailer.   
      * + 1. The header contains a hop limit or Time To Live value. Explain with reference to the hop limit, how a packet may fail to arrive at its intended destination. [2]
          2. A checksum is included in the packet trailer. Explain how the destination node can use a checksum to detect errors in transmission. [2]
   3. Explain why the sender’s address is included in the packet header. [2]
2. Packets are forwarded from one node to another in a network. These may be routers or gateways. Briefly describe the difference between a router and a gateway. [1]

[Total 10 Marks]