

Algorithm 1 – Number of Data Packets needed

This algorithm calculates the number of data packets that a message must be broken into before it can be transmitted across a network.

```
1 PAYLOAD_SIZE = 250
2 HEADER_SIZE = 50
3 dataToBeSent = int(input("Enter the number of bit to send: "))
4 totalSize = PAYLOAD_SIZE + HEADER_SIZE
5 numberOfPackets = 0
6 while dataToBeSent > 0:
7     dataToBeSent = dataToBeSent - totalSize
8     numberOfPackets = numberOfPackets + 1
9 print(numberOfPackets)
```

If the user enters **1400** when prompted, trace the values of the variables shown through the algorithm. You may not need to use all of the rows in the table.

PAYLOAD_SIZE	HEADER_SIZE	dataToBeSent	totalSize	numberOfPackets
		1400		

The variables PAYLOAD_SIZE and HEADER_SIZE are a special type of variable. What type? What does this mean?