Question 1:

A pupil has been struggling to keep up with making notes in class. It was taking too long for her to write things in full. She develops a shorthand system, where all words longer than 5 characters, are shortened to two first characters, followed by a dash, followed by the two last characters of that word.

For example, “plus” would not be shortened, but “addition” becomes “add-on”, “economics” becomes “ec-cs”, etc.

Design a program that will use this system on any text string.

Question 2:

Write a program for the following requirements.

A vending machine allows a customer to put the coins in, then use the button pad to choose their product, which include chocolate bars, crisps, and bottled water. All chocolate bars are priced at £0.65, crisps at £0.50, water at £1, if the money is insufficient, a message is displayed “Insufficient coins”.

Question 3 .

You are writing a program for an airline that calculates the price for oversized baggage (if any) that air travellers have to pay. The rules are given as follows:

Any baggage that is under 10 kg and is no larger than 40 by 30 cm, ignoring depth, can go free of charge.

Any baggage that doesn’t satisfy the first criteria, up to 20 kg and 60 by 40 cm, costs £50.

Any baggage that doesn’t satisfy the first and second criteria, is charged £10 per kg.

Baggage over 100 kg and 150 by 150 cm is not allowed at all and should be sent separately by freight. In this case, the cost variable gets assigned an rogue value of -99.