Workings and final answer.

What have we learned?

What other mathematical techniques do we need to apply?

What useful information do we know?

**REMEMBER**! Accuracy and spelling of key words \* Appropriate paragraphing and sequencing of information presented \* Correct phrasing – capitals, punctuation.

What do we want to find out?

Mathematics Unit 28: Coins

You are asked to design a new set of coins. All coins will be circular and coloured silver, but of different diameters.  
Researchers have found out that an ideal coin system meets the following requirements:

* Diameters of coins should not be smaller than 15mm and not be larger than 45mm.
* Given a coin, the diameter of the next coin must be at least 30% larger.
* The minting machinery can only produce coins with diameters of a whole number of millimetres (e.g. 17mm is allowed, 17.3mm is not).

**QUESTION 28.1**You are asked to design a set of coins that satisfy the above requirements. You should start with a 15mm coin and your set should contain as many coins as possible. What would be the diameters of the coins in your set?