QUESTION FOR THE TEACHERS

Question No.	:	1

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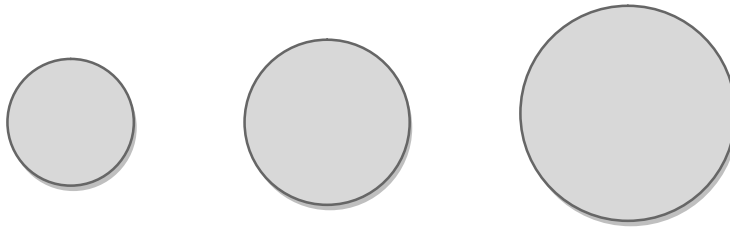
Researchers have found out that an ideal coin system meets the following requirements:

- diameters of coins shout not be smaller than 15 mm and not be larger than 45 mm.
- 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 millimeters (e.g. 17 mm is allowed, 17.3 mm is not).

Question 1: COINS

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

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ANSWER

Question No.	:	1

QUESTION INTENT : Understanding and use of complicated information to do calculations.

Code 1 : 15 – 20 – 26 – 34 – 45. It is possible that the response could be presented as actual drawings of the coins of the correct diameters. This should be coded as 1 as well.

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