WALT:

To calculate the cost of building a room on a house.

WILF:

- The problem is broken down into organised sections;
- Each section includes an explanation of what you are doing;
- Each section shows what maths you are using (eg formulae);
- Each part of the answer is clearly laid out;
- Each answer includes the necessary units;
- There is a final sentence that makes the answer clear.

The Question

From the information given, calculate the cost of:

- building the room using bricks and concrete;
- carpeting the room.

The Information

A plan of the cellar is given on an attached sheet. This also includes the dimensions of a brick.

Entrance to the cellar is gained by walking down some stairs. There are no external doors or windows.
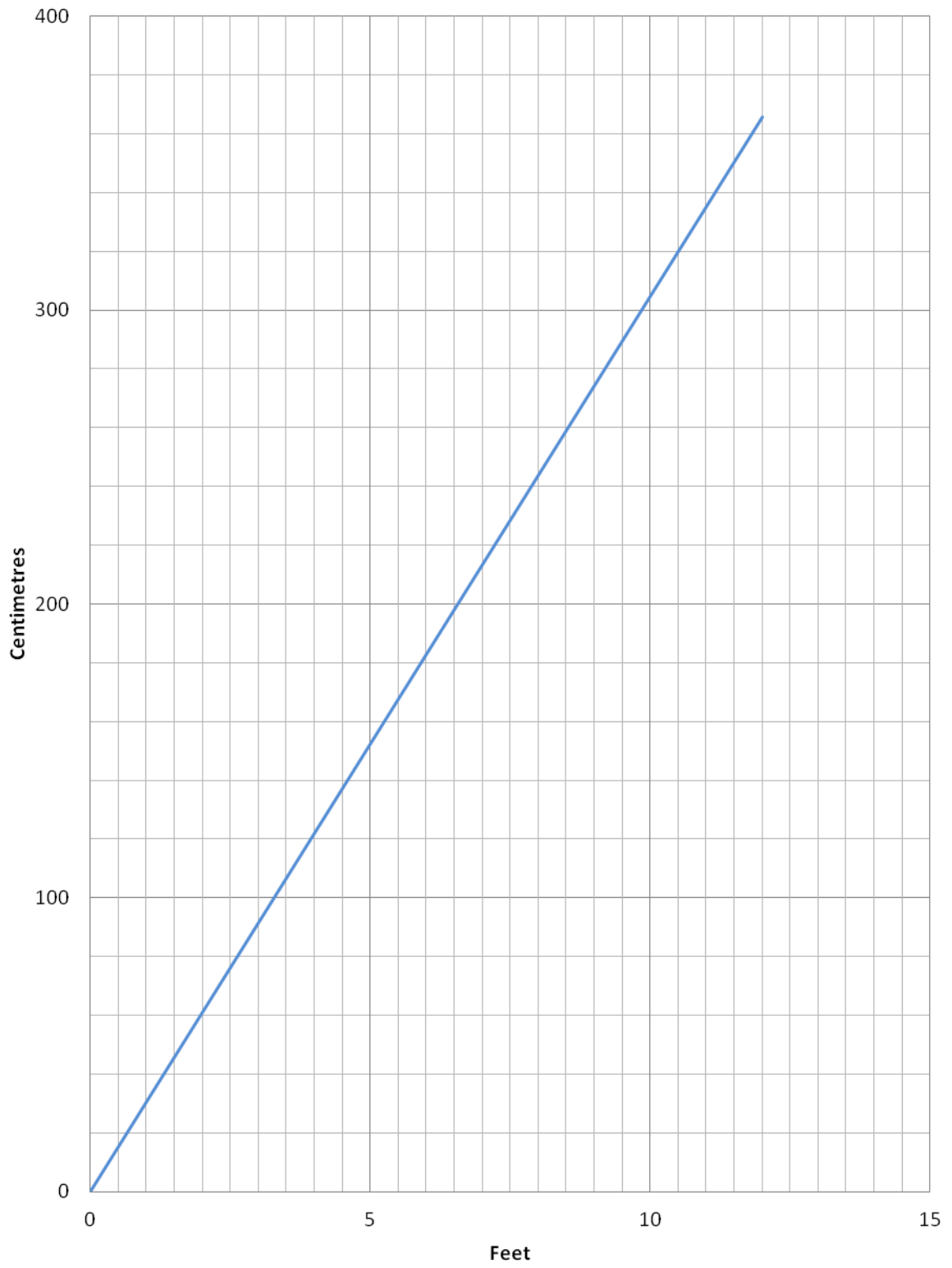
The cost each brick is £0.17.   A pallet contains 1000 bricks. You can purchase a pallet of bricks at a 7.5% discount to purchasing the individual bricks.
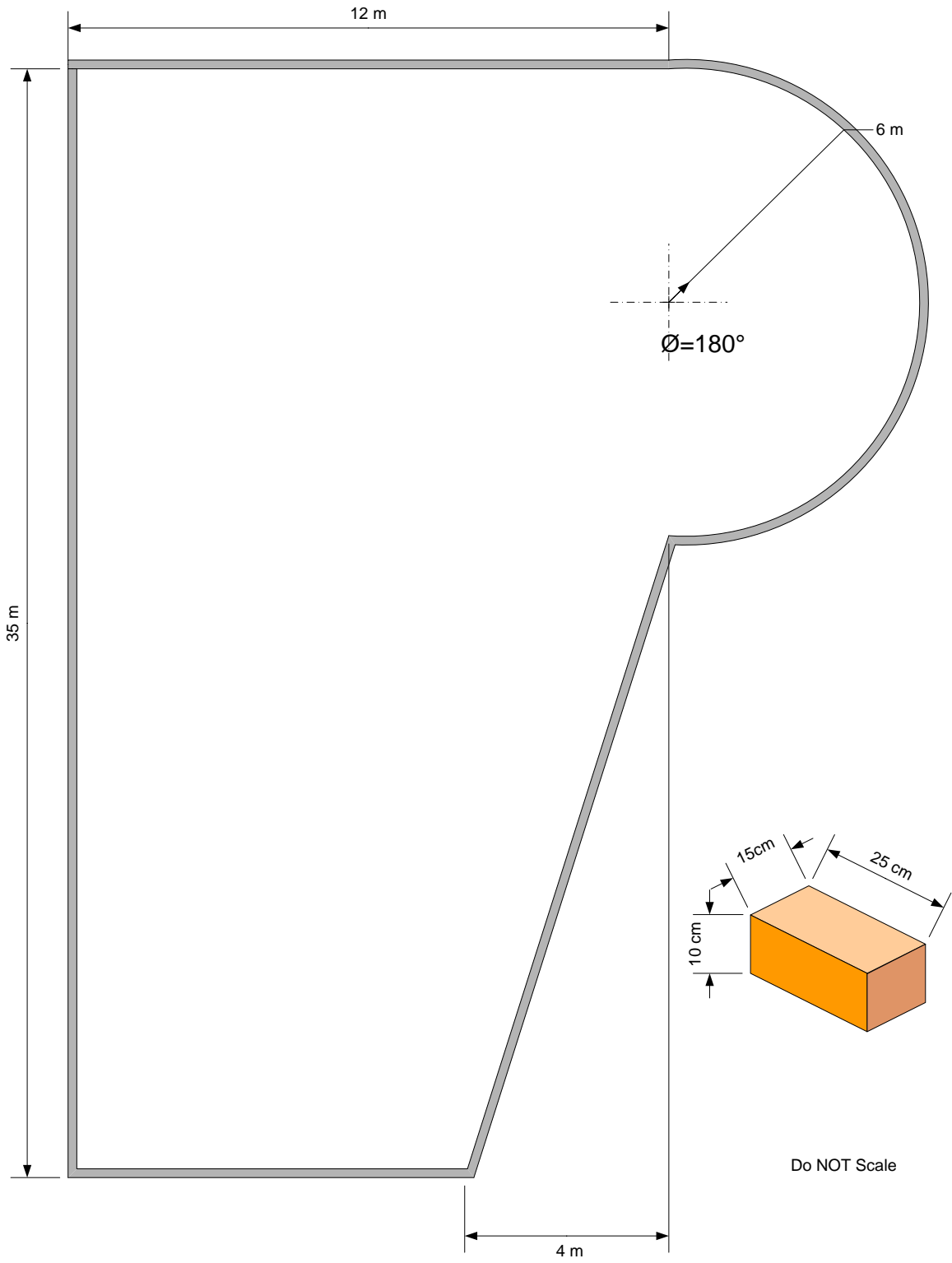
The walls must be 8 feet high.

The ratio of sand to cement in the concrete that you use to glue the bricks together is 7:2. Altogether, you need 370kg of concrete. Cement comes in 20kg bags, each costing £8.75. Sand comes in 10kg bags, each costing £3.10.

The cost of the carpet is £27.95 per square metre. The cost of fitting the carpet is £160. There are reductions available depending on the cost of the carpet.

Conversion of Feet to Centimetres

12 m

6 m

Ø=180°

35 m

4 m

15cm

25 cm

10 cm

Do NOT Scale

Plan of the Room.

Discount Rate

Percentage Savings vs. Cost of Carpet