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## DECORATOR INVESTIGATION

## The Problem

You are taking the role of a quantity surveyor and it is your job to determine how much it will cost to decorate three newly constructed houses in three different designs.

The designs will be selected to fit the budgets of a particular demographic (type of people).

- The Executive Home will have the top design of everything. Expense is no barrier to the choices you will make for the Executive Home range.
- The Family Home is for house buyers who cannot afford the most expensive of everything, but still like to have certain luxuries in terms of carpeting and wallpaper.
- The First Home range is for those buyers who are purchasing their first homes and have a tight budget to fit. Their homes need to look nice but will be more practical than decorative in taste.

You have to design a home for each of the different markets.

## What am I looking for?

It is important that you organise your ideas clearly stating what you are doing with each set of calculations. An example of what I am looking for can be found by going to

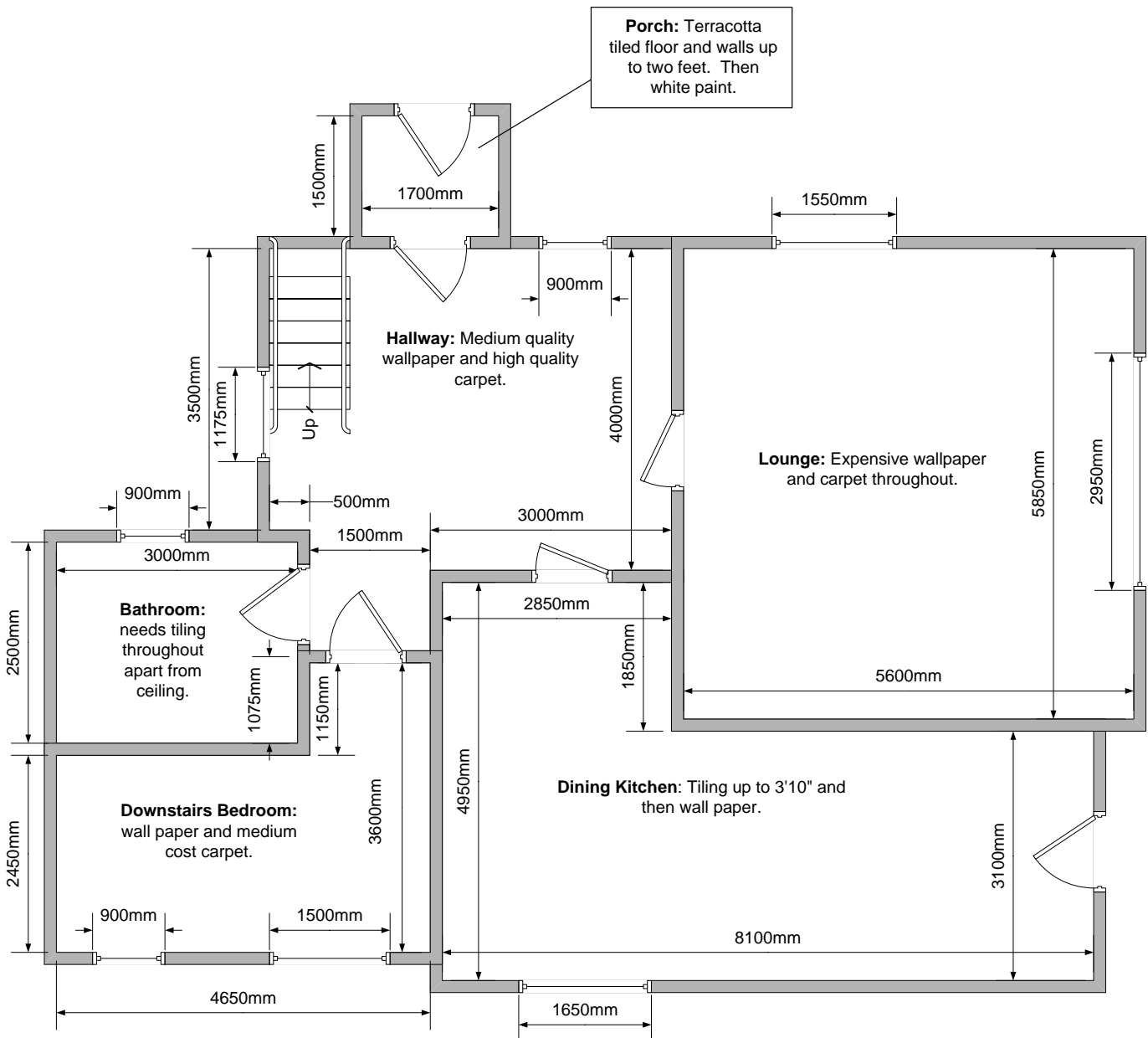
[www.achildsguideto.com](http://www.achildsguideto.com) > Maths > Problems > Model Answer to Cellar Problem.

Note that there are a lot of subheadings stating, "To calculate the ..." This is needed to help the reader to understand your work and to help you to understand what you are doing as well.

## What do you need to do?

1. Ensure you know the lengths of every wall.
2. Calculate the area of the carpet required.
3. Decide upon a carpet type and calculate the cost including that of fitting.
4. Make sure you follow the instructions for each room, eg tiled floor in bathroom.
5. Calculate the cost of wall papering each wall and don't forget to include painters and decorators wages in the calculations.
6. Remember that you don't need to paper over windows and doors.
7. Make sure you study the diagram very carefully as it will tell you most of the information you need to know.

## The Plan



All doors are 900mm wide and 6' 8" tall.

All windows are 1.15m tall.

There are skirting boards in each room that run round the edge of the wall and floor. The height of the skirting board is 3½ inches. The skirting boards do not run in front of the doors.

You use half a bottle of turpentine spirit in each room cleaning brushes when you have been painting.

The cost of decorators are £120 per day and a decorator can hang one sheet of wall paper in 14minutes. A decorator can paint 20m<sup>2</sup> of wall in 30 minutes or paint gloss on 7 metres of skirting boards in the same amount of time.

Carpet fitting costs £35.70 per room.

## Materials List and Costs

### Wallpapers

Pattern A (0.80m x 11.20m)	...	...	...	...	...	...	...	£13.29 per roll
Pattern B (0.80m x 10m)	...	...	...	...	...	...	...	£5.57 per roll
Pattern C (0.90m x 8m)	...	...	...	...	...	...	...	£6.24 per roll
Pattern D (0.80m x 10.5m)	...	...	...	...	...	...	...	£11.74 per roll
Wallpaper paste (covering 20m <sup>2</sup> )	...	...	...	...	...	...	...	£2.36 per packet

### Paints (with covering in parenthesis)

White (37m <sup>2</sup> )	...	...	...	...	...	...	...	£8.74 per tin
Magnolia (41m <sup>2</sup> )	...	...	...	...	...	...	...	£5.95 per tin
Gunbarrel Grey (28m <sup>2</sup> )	...	...	...	...	...	...	...	£7.64 per tin
Bluebell White (38m <sup>2</sup> )	...	...	...	...	...	...	...	£8.40 per tin
White Gloss (13m <sup>2</sup> )	...	...	...	...	...	...	...	£11.24 per tin
Turpentine Spirit to clean brushes	...	...	...	...	...	...	...	£1.59 per bottle

### Carpets

High quality wear carpet	...	...	...	...	...	...	...	£28.50 per m <sup>2</sup>
Medium patterned carpet	...	...	...	...	...	...	...	£23.85 per m <sup>2</sup>
Medium plain carpet	...	...	...	...	...	...	...	£18.93 per m <sup>2</sup>
Budget plain carpet	...	...	...	...	...	...	...	£14.38 per m <sup>2</sup>
Underlay	...	...	...	...	...	...	...	£4.20 per m <sup>2</sup>

### Tiles

Floor tiles (12" x 12")	...	...	...	...	...	...	...	£1.14 per tile
Cement for fastening tiles (5m <sup>2</sup> )	...	...	...	...	...	...	...	£3.59 per pack
Spacers (You will need two packs)	...	...	...	...	...	...	...	£0.98 per pack
Grout (Enough for 12 tiles)	...	...	...	...	...	...	...	£4.30 per bag
Wall tiles (6" x 6")	...	...	...	...	...	...	...	£0.85 per tile
Patterned Wall tiles (12" x 3")	...	...	...	...	...	...	...	£7.53 per tile

## Conversion Graph

