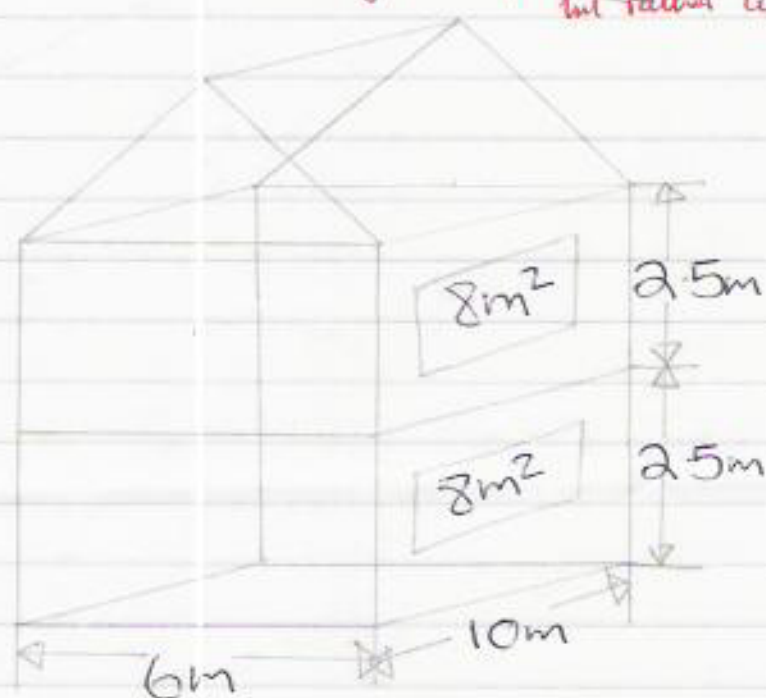


pay the interest on the cost of installing the system, or alternatively to calculate the maximum a zone heating system might cost while being paid for out of the savings on the heating bill. If the cost of the system is greater than this maximum, installation would save money; else it would not.

Most of the important points are here,

but rather cumbersome; be more precise.

2 1/3



Heat is lost through the upstairs walls at a rate $A_{upw} = (2 \times 2.5 \times 10 + 2 \times 2.5 \times 6) \times 0.56 = (50 + 30) \times 0.56 = 40.32 \text{ W/C}^\circ$ ✓ 1/1.

And through the windows at a rate

$$A_{upwin} = 8 \times 2.9 = 23.2 \text{ W/C}^\circ \quad \checkmark$$

And through the ceiling at a rate

$$A_{upc} = 60 \times 0.34 = 20.4 \text{ W/C}^\circ \quad \checkmark$$

Hence heat is lost from upstairs through the walls, windows and ceiling at a rate

$$40.32 + 23.2 + 20.4 = 83.92 \text{ W/C}^\circ \quad \checkmark$$

Hence heat is lost from the upstairs through the walls, windows and ceiling at a rate

I need to be able to read all of this!