Wednesday Numeracy Extension Activity

Website link

https://nrich.maths.org/10344/note

Key questions

Are there any windows that use the same amount of glass? How do their frame lengths differ?
Are there any windows that use the same amount of frame? How do their glass areas differ?

Solutions:

There are six windows shown and you could put them in pairs of windows which have the same perimeter but different areas, or the same areas but different perimeters.

We chose to work with the £150 and £140 windows which have the same perimeter, but different areas.

For the £150 window, A = 9 and P = 12. For the £140 window, A = 8 and P = 12.
This showed us that 1 square of A = £10.

For the £140 window, this means that A = £80 and P = £60, which means that 1P = £5.

So the answer is that a piece of glass costs £10 for every square of area, plus £5 for every square edge.

We checked our answers on all the other pieces of glass, and it worked every time.