Re: factoring using geomerty?

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"sqrt\(i\)" <com.com@com> writes:

> would you care to elaborate just a little on the link between the difference
> of squares and its relation to geometry?

Bob can undoubtedly answer for himself, but this example may be useful.

Draw two squares, one of side x and another with side y. Assume x>y and that the smaller square shares two edges and one corner with the larger. Something like this:

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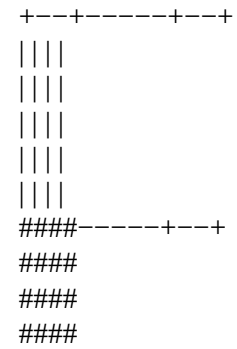
which is a 4x4 square (so y = 4) inside a 10x10 square (and x=10).

I've drawn in two other lines. The difference between the two squares is the unshaded area. The two portions abutting the smaller square are clearly rectangles with sides y and (x−y). The remaining unshading area is clearly a square with sides (x−y). Now take one of the rectangles and place it alongside the square opposite the other rectangle. You get a long thin rectangle. One side is clearly still just (x−y). The other side is (x + y) in length. The area of this new rectangle is thus (x−y)*(x+y) but, by construction, the area is the same as the difference in area of the two squares. Conclude that x^2−y^2 = (z−y)*(x+y).

The diagram after rearrangement looks something like this:



Paul

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The opinions expressed in this message | Hanging on in quiet desperation is
are my own personal views and do not | the English way.
reflect the official views of Microsoft | The time is gone, the song is over.
Corporation. Paul Leyland, pleyland@ | Thought I'd something more to say.