

ZMATH 2014f.00459

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Being inclusive.

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From the text: “A hexagon has five sides.” True or false? ‘False’, you might say – ‘a hexagon has six sides’. But if it has six sides, then it certainly has five sides. If I have ten pound coins in my pocket and somebody asks me, ‘Do you have two pounds?’ then I should answer ‘Yes’, shouldn’t I? If I didn’t want to give them my money, and so answered ‘No’ on the grounds that I had ten pounds, not two pounds, you would think that a bit dubious, wouldn’t you? To protest that ‘They should have asked me whether I had “at least” two pounds!’ sounds a bit hollow. So a hexagon has five sides, a square has three right angles, a rectangle has one line of symmetry and a triangle has two vertices. I think this is how pupils sometimes feel when we ask them to accept ‘inclusive definitions’. We show them a square and ask them if it’s a parallelogram, and they say, ‘No, it’s a square, stupid’, with the ‘stupid’ perhaps implied rather than stated. And we think, ‘Oh dear. They don’t realize that all squares are parallelograms’. But maybe they do but they are just trying to answer more accurately.

Classification: E30 E40 G40

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