

A Pizza Problem with Halves

A local pizza shop has asked us to help them keep track of certain pizza sales. Their standard "plain" pizza contains cheese. On this cheese pizza, one or two toppings can be added to either half of the plain pie or the whole pie. How many possible choices for pizza do customers have if they can select from two different toppings (sausage and pepperoni) that could be placed on either the whole cheese pizza or half a cheese pizza? List all the possible different selections. Find a way to convince each other that you have accounted for all possibilities.