

Miramar Ranch Elementary Problem of the Week

Directions: Read the problems. Select the one that you would like to solve. The levels do increase in difficulty. Make sure to solve your problem on paper so you can participate in our Flip Grid video. Go to flipgrid.com, enter [kalickimath](https://kalickimath.com). You will need your child's google account to participate in the video. Students do not have to record their face. They can just record their work. Looking forward to seeing everyone's great thinking.

Level A

Cindy had a party. She invited two guests. Her guests each invited four guests, and then those guests each invited three guests. How many people were at Cindy's party? Explain how you determined your solution.

Level B

At Leslie's party $\frac{1}{4}$ of the people had long hair. One half of the people at the party were boys, and $\frac{1}{4}$ of the girls had short blond hair. None of the boys had long hair. If there were 32 guests, what is the maximum number of girls who could have had short red hair? Show how you determined your answer and why you know you have a correct solution.

Level C

Mia, Jake, Carol, Barbara, Ford and Jeff are all going to a costume party. Figure out what costume each person is wearing and when they arrived at the party. The person that arrived fourth was wearing a bathing suit. Barbara was the last to arrive. Jake and Mia arrived and stayed together. The first person was dressed as a French maid. Superman arrived right before Barbara. The potato heads were always together at the party. Ford was a surfer dude. The French maid was not Carol. The vampire arrived after Superman.

Level D

Your aunt is having a baby. You have created a party game for a baby shower. It is called Pick the Gender. You put pink and blue tiles into a bag. You ask two guests to pick one tile out of the bag without looking. You tell your guests that if they are the same color, Player A wins and if they are two different colors then Player B wins. How many tiles of which colors did you put into the bag to make sure that both players have an equal chance of winning? Explain your solution and why it is fair.

Level E

A man and his wife invite 5 other couples to a dinner party. As the guests arrive to visit before dinner, they shake hands. Not everybody shakes everybody's hands, and of course, no one shakes hands with his own spouse. Later, as they sit down to dinner, the host asks each other person, including his wife, "How many hands did you shake?" He notices, to his surprise, that each respondent shook a different number of hands. How many did his wife shake? Explain your solution and justify your reasoning.

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