
Pick a Tile #2

Name: _____

Date: _____

Period: _____

This problem give you the chance to:

- interpret probability information
 - solve a probability problem in context
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Gina has revised her tile game. The bag has a different number of Red, Green, Blue, Yellow, and White tiles.

If someone picks a tile without looking:

- The probability of picking a Red tile from the bag is two-fifths.
- The probability of picking a Green tile is half the probability of picking a Red tile.
- Blue, Yellow, and White tiles have an equal probability of being picked.

1. (a) Use this information to complete the table.

Show how you arrived at your answers.

Color	Red	Green	Blue	Yellow	White
Probability					

(b) Complete the table. How many tiles are there all together? _____

Show how you arrived at your answers.

Color	Red	Green	Blue	Yellow	White
Number of Tiles			8		

Gina is still trying to raise funds for her math club at school. Now, they want to purchase new calculators.

She plans to charge 25¢ to pick a tile from her bag, without looking, to win valuable cash prizes.

The students playing the game can win:

- 50¢ for picking a Blue tile
- 75¢ for picking a Yellow tile
- \$1 for picking a White tile
- Nothing if a Red or a Green tile is picked

2. (a) Is Gina likely to make money from this game? Give a strong mathematical argument for your answer.

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(b) How much should Gina charge to pick a tile so that she is certain to make money from her game? Give a strong mathematical argument for your answer.

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(c) Explain how Gina can change her game so that she can still charge 25¢ and make money?

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