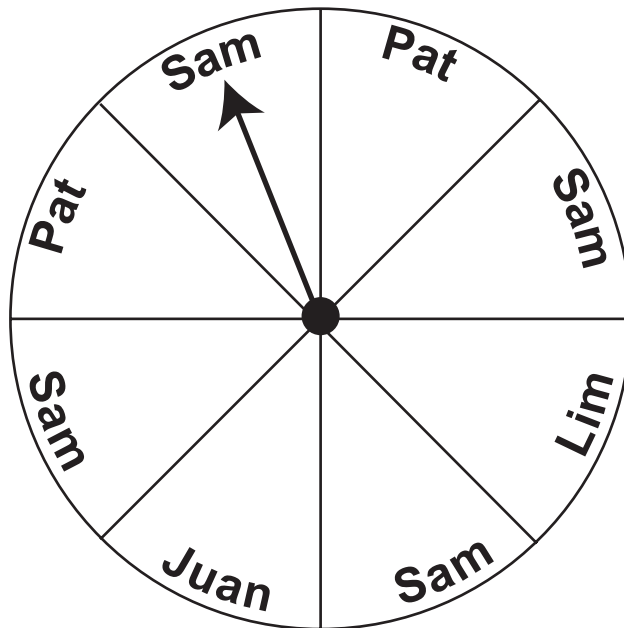


Communicates Mathematically

This task assesses your ability to **communicate mathematically**. You will show your best work when you:

- *Read the task completely before starting.*
- *Show a way to make a fair spinner.*
- *Explain your thinking.*
- *Review the reflections section after you complete the task.*

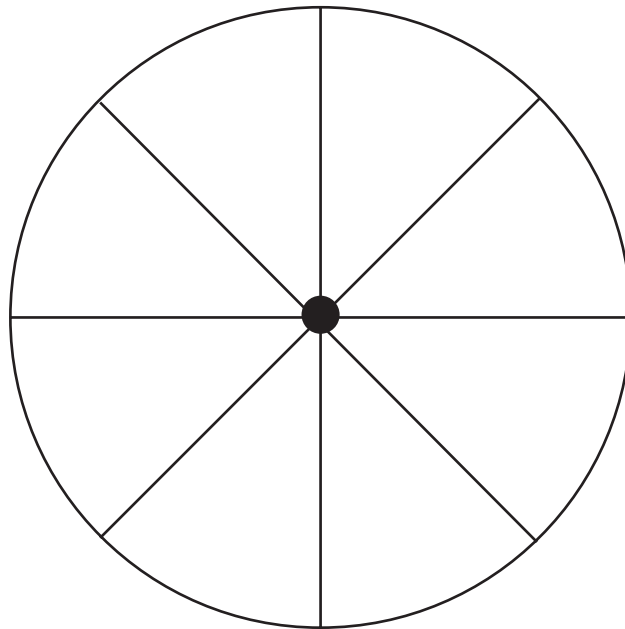
Fair Play! Sam, Pat, Lim, and Juan played a game using this spinner.



Sam won almost every game. The other players want to change the spinner to make the game fair.

Communicates Mathematically: Fair Play continued...

Label the spinner sections to make the game fair for Sam, Pat, Lim, and Juan.



How do you know your spinner is fair? _____

Reflections

My response is good because I ...

- found a way to make the spinner fair;
- labeled all spinner sections;
- used words to tell how my spinner is fair.

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	Criteria	4 Points <i>very fine work</i>	3 Points <i>fully acceptable work</i>	2 Points <i>partially acceptable</i>	1 Point <i>response attempted</i>	0 Points <i>none or insufficient</i>
Representation	Does the spinner clearly show an equal number of labeled spaces for each of the 4 players?	<ul style="list-style-type: none"> The spinner clearly shows an equal number of spaces for each of the 4 players and all sections are labeled with players' names; AND 	<ul style="list-style-type: none"> The spinner clearly shows an equal number of spaces for each of the 4 players and all sections are labeled with players' names; AND 	<ul style="list-style-type: none"> The spinner clearly shows an equal number of spaces for each of the 4 players and all sections are labeled with players' names; AND 	<ul style="list-style-type: none"> The spinner is changed from the original but may be inaccurate and may draw more than one spinner arrow; AND 	<ul style="list-style-type: none"> No attempt or replicates spinner from the prompt (i.e., uses the same names the same number of times); OR
Verification	Does the explanation support the representation of the sections for the 4 players?	<ul style="list-style-type: none"> Explanation clearly and accurately describes an equal number of sections for all 4 players and explicitly makes reference to how the new spinner changes the chance of winning. 	<ul style="list-style-type: none"> Explanation accurately describes the new spinner in terms of the number of spaces allocated to each player and reference to chance, if included, may show minor misconceptions (e.g., "Sam will not win every time"). 	<ul style="list-style-type: none"> Explanation lacks exact or complete reference to players and/or spaces (e.g., "2 of each") or uses imprecise language such as "equal wins," or "same number of turns" to describe the number of spaces. 	<ul style="list-style-type: none"> Explanation may contain major flaws or may be missing or does not answer the question. 	<ul style="list-style-type: none"> No explanation or explanation adds no new information or is irrelevant.

Solution Notes:

The circle will have sections that are equivalent in area for each of the 4 players. Order of names does not matter. Two examples are shown:

