

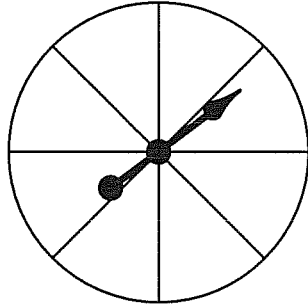
Enrichment Packet #29

Due: Monday

NAME: _____

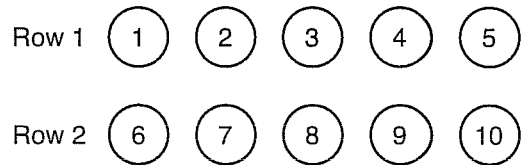
Is It Possible?

1. Design a spinner to show that it is equally likely that a person could spin red or green but impossible that a person could spin yellow. Use R for red, G for green, and Y for yellow. **Reasoning**



Here are the rules for a new addition game:

- The two rows of numbered disks are turned over, and each row is mixed up within its original row.
- The player chooses a disk from row 1 and a disk from row 2.
- The player earns a point if the sum of the two disks is equal to any of the disks in row 2.



Example: row 1 = 1 and row 2 = 7, $1 + 7 = 8$ wins a point.

Is it certain or impossible to win a point for the following situations?

- row 1 = 2 and row 2 = 6

- row 1 = 3 and row 2 = 7

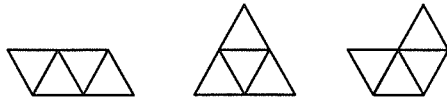
- row 1 = 4 and row 2 = 7

- If a 1 is picked from row 1, which disk in row 2 would make it impossible to score a point?

- If a 5 is chosen from row 1, is it certain or impossible to score a point?

Triangle Shapes

Patterns



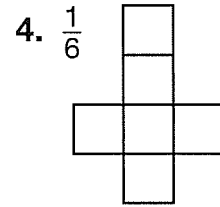
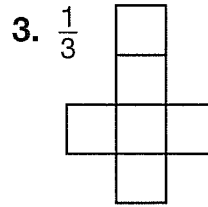
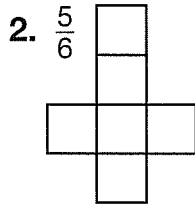
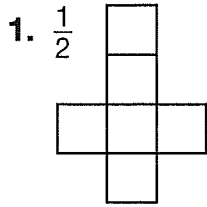
Four equilateral triangles can be attached to form three different shapes by fitting two sides together as shown. (Reflections and rotations of these three shapes are not considered different shapes.)

1. Using five equilateral triangles, draw the number of different shapes possible by joining the triangles at the sides.
2. Using six equilateral triangles, show the shape of a regular hexagon that can be formed by joining the triangles at the sides.
3. Using six equilateral triangles, show a six-sided shape that is made by forming a bigger equilateral triangle and a rhombus (4 equal sides, but not a square).
4. Using six equilateral triangles, show a parallelogram and three other different shapes that can be made by joining the sides.

Toss or Spin

Number Sense

Use the numbers 2, 3, 4, and 5. A number may be used more than once, or not at all. Label each number cube pattern so the probability of getting a 4 on one toss is the given probability.

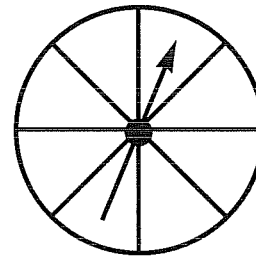


Use R for red, G for green, and Y for yellow.

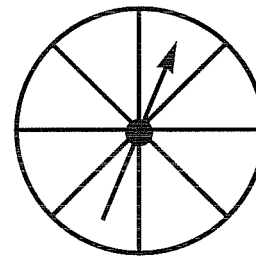
Label each spinner to show the given probabilities.

It is not necessary to use every color in each spinner.

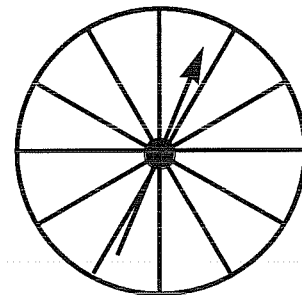
5. The probability of spinning yellow is $\frac{5}{8}$, and the probability of spinning green is $\frac{3}{8}$.



6. The probability of spinning red is $\frac{1}{4}$, the probability of spinning yellow is $\frac{3}{8}$, and the probability of spinning green is $\frac{3}{8}$.



7. The probability of spinning red is $\frac{1}{12}$, the probability of spinning yellow is $\frac{1}{4}$, and the probability of spinning green is $\frac{2}{3}$.



Story Time

Reasoning

The students in Mrs. Wheeler’s class sit at an 8-sided table for story time. Use the clues below to determine where each person is sitting.

1. Jamie sits directly across from Mrs. Wheeler.
2. Xavier does not sit next to Matt.
3. Brian sits next to Mrs. Wheeler on her left.
4. Karen and her best friend Lisa do not sit next to each other.
5. Matt sits directly across from Karen and on Finn’s left.
6. Karen does not sit next to Jamie.

What are two possible arrangements?

