PROBABILITY QUEST

MISSION 2

CARNIVAL SPINNER – GEOGEBRA ACTIVITY



MISSION BRIEF: The spinner has **10** equal sectors. Students can change the number of **blue** and **yellow** sectors.

LEARNING FOCUS: Theoretical and Experimental Probability

Q5 PREDICT BEFORE SPINNING

The spinner has **3** blue sectors and **7** yellow sectors.
Which colour is more likely to be obtained?



Answer: [ ]

Q6 EXPLORE DIFFERENT CONFIGURATIONS

Match each spinner configuration with the correct description.

3 Blue, 7 Yellow	[ ]
5 Blue, 5 Yellow	[ ]
8 Blue, 2 Yellow	[ ]

Descriptions (dropdown options):
- Blue is Less Likely than Yellow.
- Blue and Yellow are Equally Likely.
- Blue is More Likely than Yellow.

Q7 CALCULATE THEORETICAL PROBABILITY

A spinner contains **8** blue sectors and **2** yellow sectors.

a) Total number of sectors = [ ]

b) P(Blue) = [ ] / 10

c) P(Yellow) = [ ] / 10

d) Which colour is more likely?

Answer: [ ]

Q8 RECORD EXPERIMENTAL RESULTS

Set your GeoGebra spinner to **8** blue sectors and **2** yellow sectors. Spin the spinner **20** times.

Record the actual results shown by your GeoGebra spinner.

Outcome	Number of occurrences
Blue	[ ]
Yellow	[ ]
Total	[ ]

Q9 COMPARE THE RESULTS

The theoretical probability of getting blue is $\frac{8}{10}$.
In one experiment, a student obtained 13 blue and 7 yellow outcomes after 20 spins.
Which statement is correct?

Answer: [ ]

Why might the experimental result differ from the theoretical probability?

LIVEWORKSHEETS