# 5.NF New Park

## Task

Part 1:

There are two design proposals for a new rectangular park in town.

- In design one, $\frac{3}{4}$ of the area of the park is going to be a rectangular grass area and $\frac{1}{2}$ of the grass area will be a rectangular soccer field.
- In design two, only $\frac{1}{2}$ of the park is going to be a rectangular grass area and $\frac{3}{4}$ of the grass area will be a rectangular soccer field.

Which design (one or two) will have a bigger soccer field? Explain your answer. Draw a diagram that can be used to compare the size of the soccer field in the two designs. Label the values $\frac{1}{2}$ and $\frac{3}{4}$ on the diagram.

Part 2:

Presley and Julia are cutting 1 ft. square poster board to make a sign for the new park. Presley cut her poster so that the length of the top and bottom are $\frac{1}{2}$ ft and the length of the sides are $\frac{3}{4}$ ft. Julia cut her poster so that the lengths of the top and bottom are $\frac{3}{4}$ ft and the length of the sides are $\frac{1}{2}$ ft.

Draw a diagram of each poster board. Label the values on the diagram.

How are their poster boards similar and different? Justify your reasoning.