```
prior_p = 4/7
prior_n = 3/7

l_p_big = 2/4
l_p_small = 2/4
l_p_red = 1/4
l_p_green = 0/4
l_p_blue = 3/4

l_n_big = 2/3
l_n_small = 1/3
l_n_red = 1/3
l_n_green = 1/3
l_n_blue = 1/3

# New point. Small and Blue
post_p = prior_p*(l_p_small + l_p_blue)
post_n = prior_n*(l_n_small + l_n_blue)

print("P posterior:",post_p)
print("N posterior:",post_n)
```

```
P posterior: 0.7142857142857142
N posterior: 0.2857142857142857
```

```
total = post_p + post_n
prob_p = post_p/total
prob_n = post_n/total

print("P probability:",prob_p)
print("N probability:",prob_n)
```

```
P probability: 0.7142857142857143
N probability: 0.28571428571428575
```

The output class is most likely to be P based on the normalized probability.

✓ 0s completed at 9:22 PM ● ×