3.NF Comparing Fractions with a Different Whole

Task

Bryce drew this picture:

Then he said,

\[ \frac{1}{4} \text{ is greater than } \frac{1}{2}. \]

a. What was his mistake? Draw a picture that shows why \( \frac{1}{2} \) is greater than \( \frac{1}{4} \).

b. Which of these comparison of \( \frac{1}{4} \) with \( \frac{1}{2} \) are true?
   i. \( \frac{1}{4} > \frac{1}{2} \)
ii. \( \frac{1}{4} < \frac{1}{2} \)

iii. \( \frac{1}{4} = \frac{1}{2} \)

iv. \( \frac{1}{2} > \frac{1}{4} \)

v. \( \frac{1}{2} < \frac{1}{4} \)