Comparing and Ordering with Denominators

The superheroes saved the day again! They baked treats for their classmates at the Superhero Academy. The superheroes are ready to eat their treats! They need your help to compare the parts of the special treats they baked.

To compare fractions, you will use their denominators and a number line for each fraction. To use the number lines, you will put a dot on each number line to show each fraction. Then you will look at the denominators of the fractions to check your work. The greater fraction will have the lesser denominator. Are you ready to help the superheroes compare to eat their treats?

Joe and Ian want to eat some fruit tart. They will need two pieces, one for each of them. They want to make sure they will get bigger pieces. The first fruit tart is cut into fourths. The second fruit tart is cut into fifths. That means the heroes would have $\frac{2}{4}$ or $\frac{2}{5}$ of a fruit tart. Which is greater: $\frac{2}{4}$ or $\frac{2}{5}$? Joe and Ian think that $\frac{2}{4}$ looks bigger than $\frac{2}{5}$, but they aren't sure. These two fractions have the same numerator but different denominators. Here are two number lines you can use to help the heroes. Where is $\frac{2}{4}$ on the first number line?

Yes! Now find $\frac{2}{5}$ on the second number line. That's right! Now that you have shown each fraction, find the fraction that is closer to 1 on its number line.

It's $\frac{2}{4}$! $\frac{2}{4}$ is closer to 1. That means $\frac{2}{4}$ is greater than $\frac{2}{5}$! Can you check your work by comparing the denominators of $\frac{2}{4}$ and $\frac{2}{5}$? Which fraction has the lesser denominator? $\frac{2}{4}$! $\frac{2}{4}$ is greater than $\frac{2}{5}$. Joe and Ian will choose slices from the first fruit tart.

All four of the superheroes want to eat some brownies. The first pan of brownies is cut into eighths. The second pan of brownies is cut into sixths. That means the heroes will have $\frac{4}{8}$ or $\frac{4}{6}$ of the pan of brownies. Which is greater: $\frac{4}{8}$ or $\frac{4}{6}$? The superheroes think that $\frac{4}{8}$ looks smaller than $\frac{4}{6}$, but they aren't sure. These two fractions have the same numerator but different denominators. Here are two number lines you can use to help the heroes. Where is $\frac{4}{8}$ on the first number line? Yes! Now find $\frac{4}{6}$ on the second number line. That's right!

Now that you have shown each fraction, find the fraction that is closer to 1 on its number line.

It's $\frac{4}{6}$! $\frac{4}{6}$ is closer to 1. That means $\frac{4}{8}$ is less than $\frac{4}{6}$! Can you check your work by comparing the denominators of $\frac{4}{8}$ and $\frac{4}{6}$? Which fraction has the lesser denominator? $\frac{4}{6}$! $\frac{4}{8}$ is less than $\frac{4}{6}$. The superheroes will choose pieces of brownie from the second pan! You did a great job helping the superheroes find the greater fractions! Now they can enjoy their treats and celebrate saving the day!