

Page 57 - 60

Unit 8
Lesson 6

Lesson 8-6
Compare Fractions with the Same Numerator

Be Curious
How are they the same?
How are they different?

Math is... Mindset
What have you done in the past to help you make decisions?

Unit 8 • Fraction Equivalence and Comparison 57

Learning Outcome

Learning Targets

- I can compare fractions with the same numerators and different denominators.
- I can explain how to compare fractions with the same numerators and different denominators.

Vocabulary

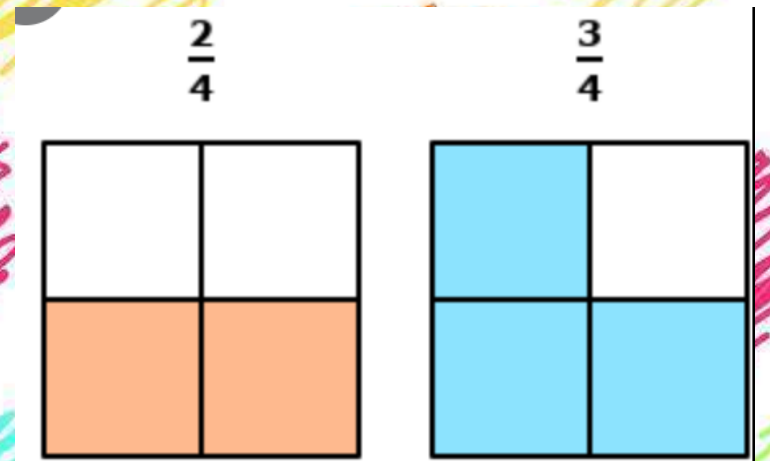
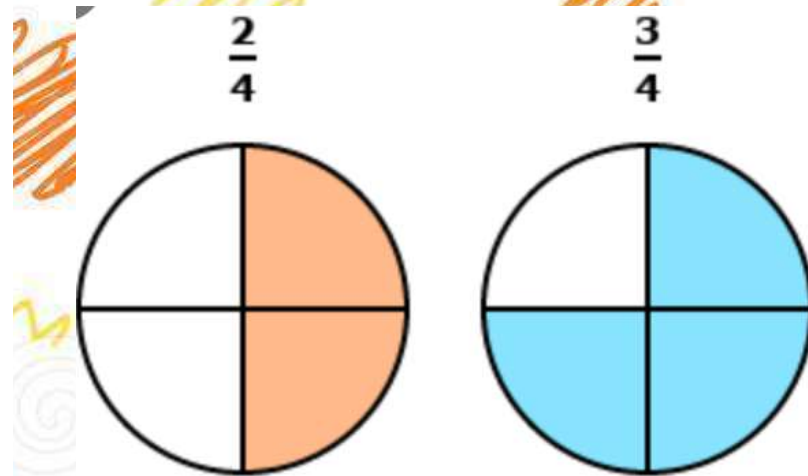
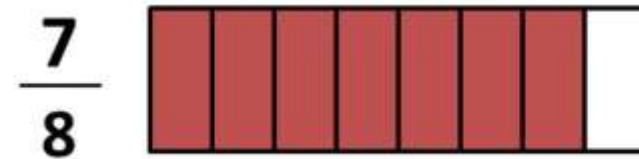
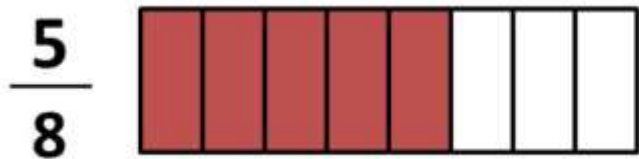
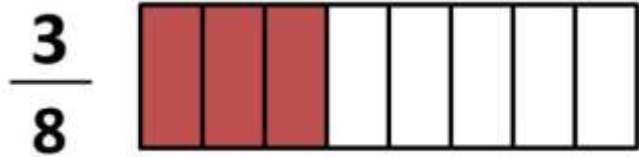
Denominator

Justify

Numerator

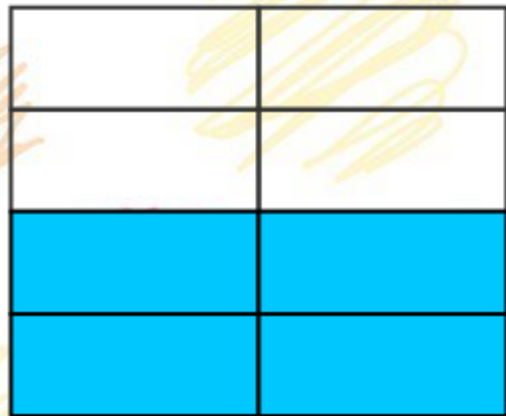
Process

Review



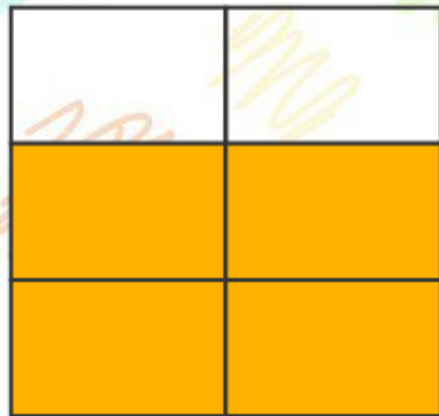
What do you notice

A



$$\frac{4}{8}$$

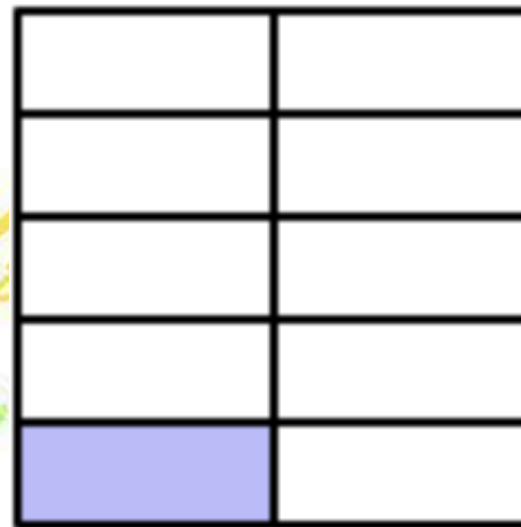
B



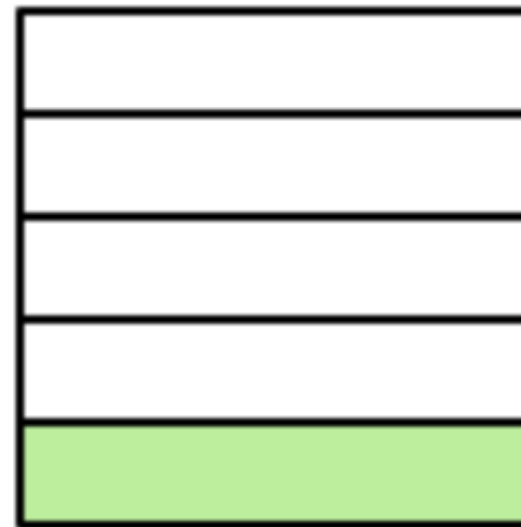
$$\frac{4}{6}$$

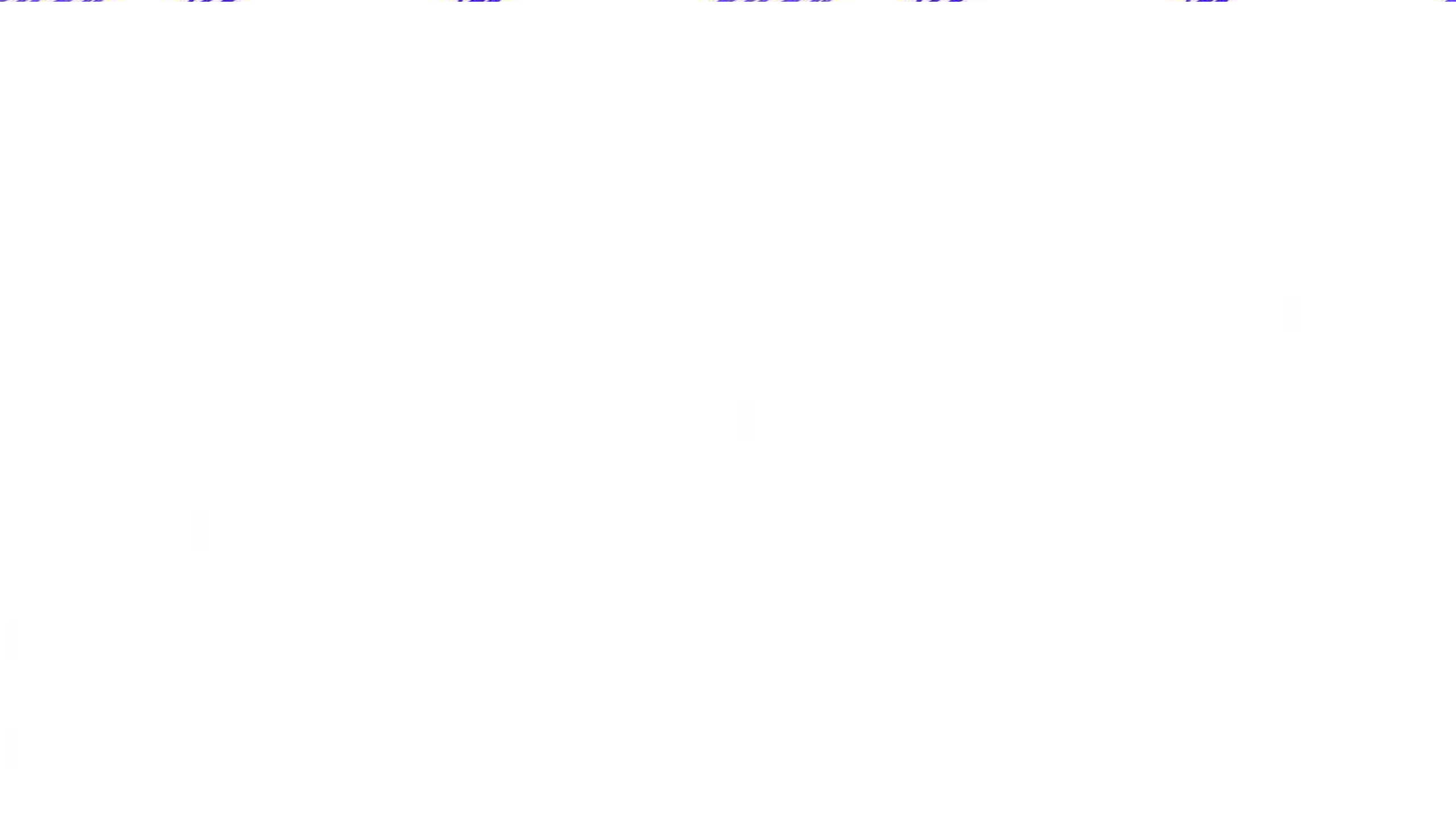
<

$$\frac{1}{10}$$



$$\frac{1}{5}$$



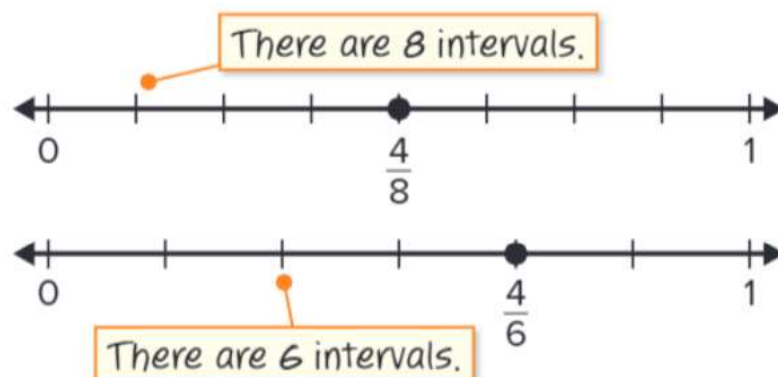


Learn

Jesse draws a circle with 8 equal parts. Jenna draws a circle the same size with 6 equal parts. They each shade 4 parts of their circle.

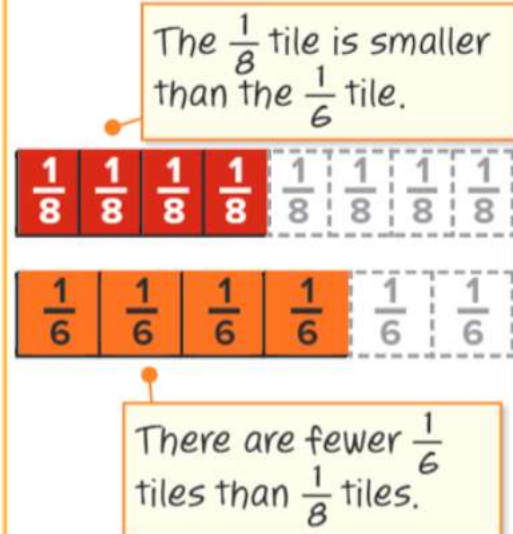
Whose circle has a greater amount shaded?

► **One Way** Use number lines.



As the denominator decreases, the size of the fraction increases, so $\frac{4}{8} < \frac{4}{6}$.

► **Another Way** Use fraction tiles.



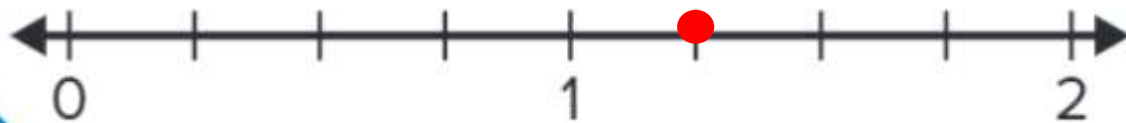
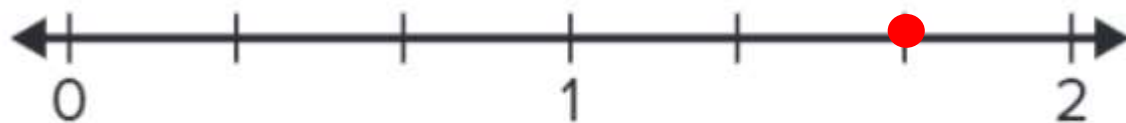
Math is... **Explaining**

Why is $\frac{1}{6}$ of a whole greater than $\frac{1}{8}$ of the same whole?

When comparing fractions with the same numerators, the fraction with the lesser denominator is greater.

Work Together

How can you use $>$, $<$, or $=$ to compare $\frac{5}{3}$ and $\frac{5}{4}$? Use the number lines to justify your answer.

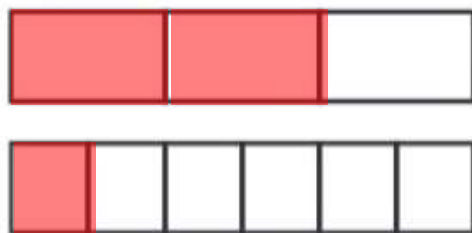


$$\frac{5}{3} > \frac{5}{4} \text{ or } \frac{5}{4} < \frac{5}{3}$$

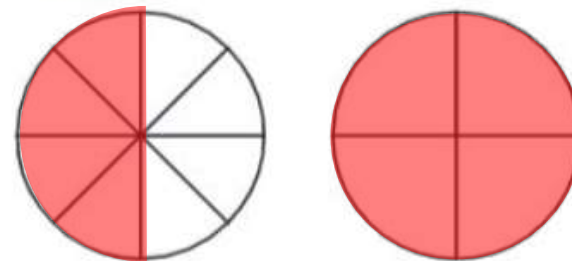
On My Own

How can you write $>$ or $<$ to make the comparison true?
Shade the representation to justify your reasoning.

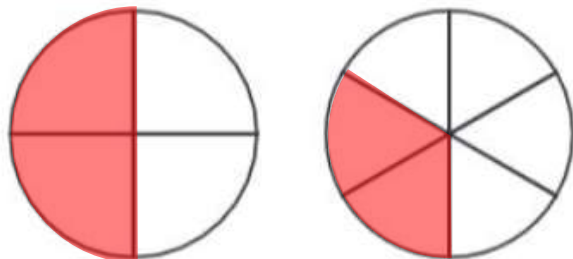
1. $\frac{2}{3} \boxed{>} \frac{2}{6}$



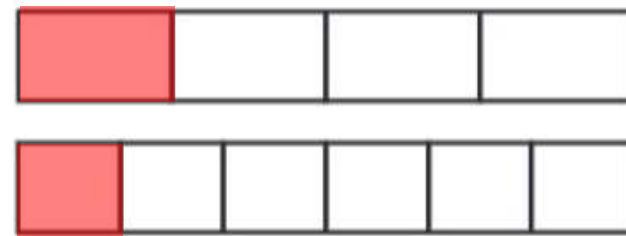
2. $\frac{4}{8} \boxed{<} \frac{4}{4}$



3. $\frac{2}{4} \boxed{>} \frac{2}{6}$

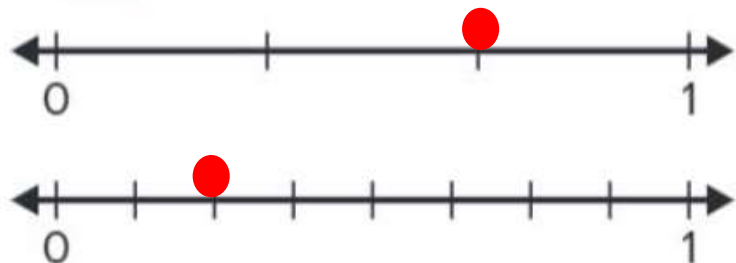


4. $\frac{1}{4} \boxed{>} \frac{1}{6}$

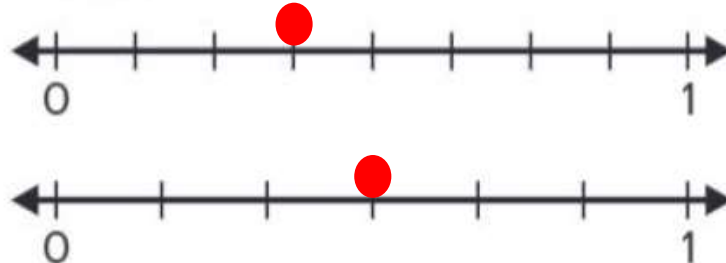


How can you write $>$ or $<$ to make each comparison true?
Draw a point on each number line to justify your reasoning.

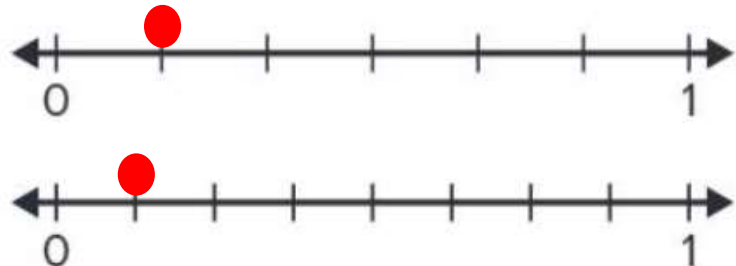
5. $\frac{2}{3} \boxed{>} \frac{2}{8}$



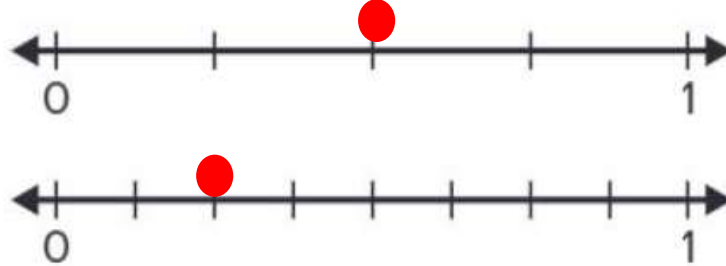
6. $\frac{3}{8} \boxed{<} \frac{3}{6}$



7. $\frac{1}{6} \boxed{>} \frac{1}{8}$



8. $\frac{2}{4} \boxed{>} \frac{2}{8}$



9. Circle the comparisons that are true. Explain your reasoning.

$$\frac{4}{6} < \frac{4}{8}$$

$$\frac{3}{2} > \frac{3}{3}$$

$$\frac{2}{3} < \frac{2}{6}$$

$$\frac{1}{4} > \frac{1}{8}$$

Because the fractions have the same numerator, the one's with the greater denominator are greater.

10. Circle the fractions that are greater than $\frac{2}{6}$. Explain how you know.

$$\frac{2}{2}$$

$$\frac{2}{3}$$

$$\frac{2}{4}$$

$$\frac{2}{6}$$

$$\frac{2}{8}$$

Any fraction with a denominator less than 6 is greater

11. **STEM Connection** Owen searches $\frac{3}{4}$ of Field A for insects. He searches $\frac{3}{8}$ of Field B. Both fields are the same size. Does he search more of Field A or B? Explain how you know.

Field A, the numerators are the same so the fraction with the lesser donminator is greater



- 12. Extend Your Thinking** Bryce is comparing $\frac{1}{4}$ and $\frac{2}{3}$.
How can he use $\frac{2}{4}$ to help him compare the two fractions
and decide which is greater?

$\frac{2}{3}$ is greater than $\frac{2}{4}$ and $\frac{2}{4}$ is greater than $\frac{1}{4}$.

Does this make sense?

