

Grade 3 Math

3.NF.3d

Day 14

Standard: Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

Objective: I can compare two fractions with the same numerator.

Instructional learning video to support the objective:

<https://youtu.be/2BxsmPo-zXI>

Practice Worksheet: EnVision 13-4 Activity 1, EnVision 13-4 Activity 2, Comparing Fractions with Pictures (Students will compare fractions using $<$, $>$ or $=$)

Problem of the Day (POD):

Julia says $\frac{1}{8}$ is greater than $\frac{1}{4}$ because 8 is greater than 4. Is she correct? Explain.

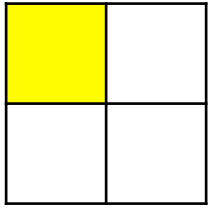
Games to play to support fractions:

Compare Fractions of a Whole Game

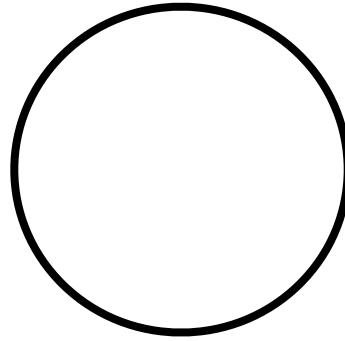
Digital: "Compare Fractions with Same Numerators"- https://www.splashlearn.com/fraction-games-for-3rd-graders?adCampaign=6495519999&adGroup=93416439984&adID=405811061644&adTag=fraction%20games%20for%203rd%20grade&gclid=EA1aIQobChMIgtX_tNOu6AIVEVYMCh2A9gGqEAAYASAAEgLWffD_BwE&ipad_blocker_disabled=1&utm_term=bts6011584899686

Additional Online Resources:

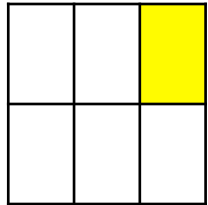
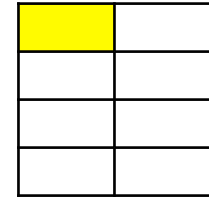
- STMath.org (via Clever)
- Imagine Learning (via Clever)



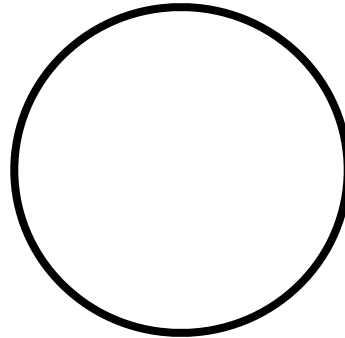
$$\frac{1}{4}$$



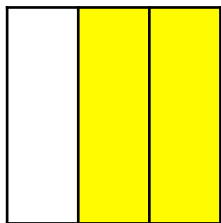
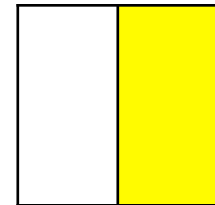
$$\frac{1}{8}$$



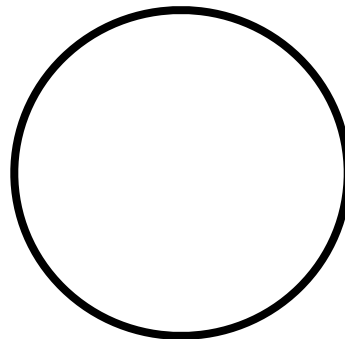
$$\frac{1}{6}$$



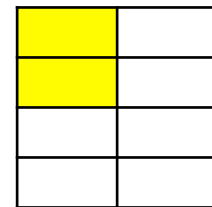
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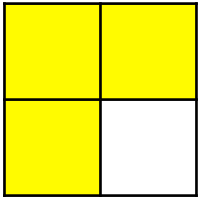


$$\frac{2}{3}$$

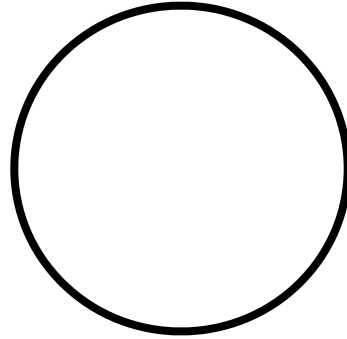


$$\frac{2}{8}$$

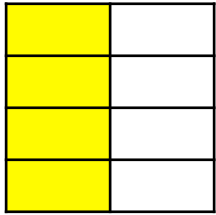
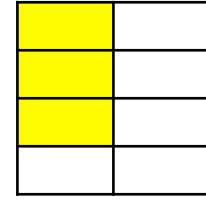




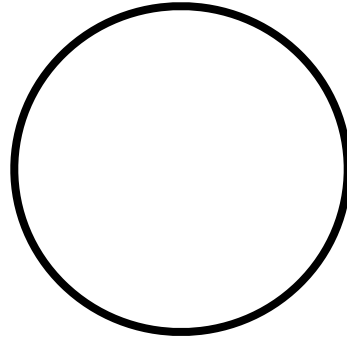
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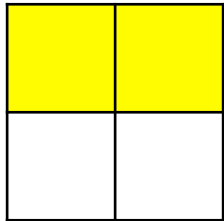
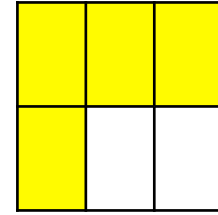
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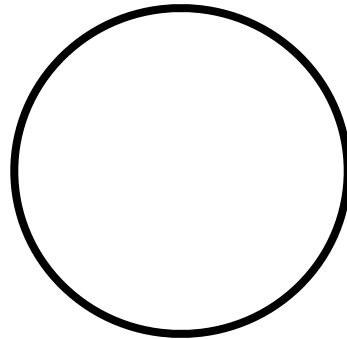
$$\frac{4}{8}$$



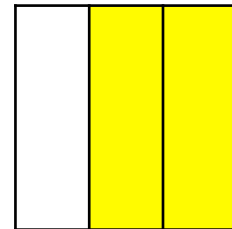
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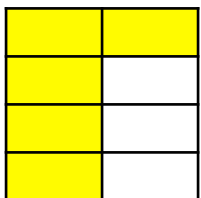


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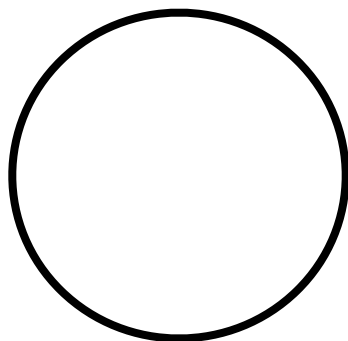


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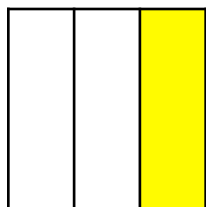
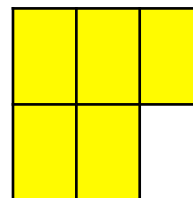




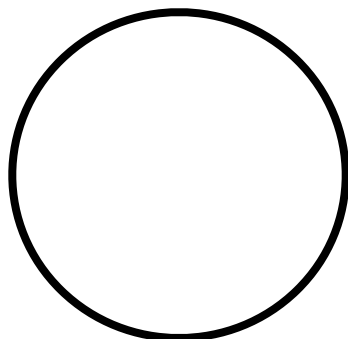
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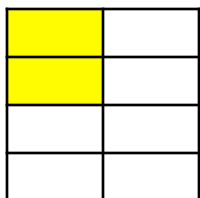
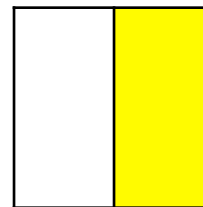
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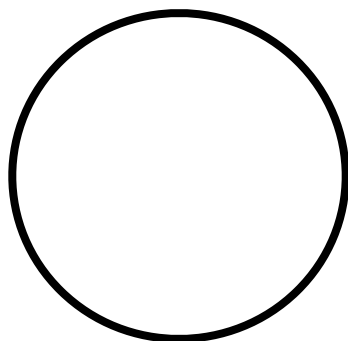
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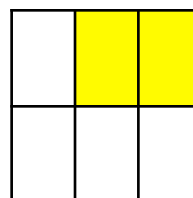
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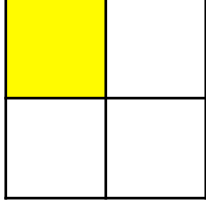


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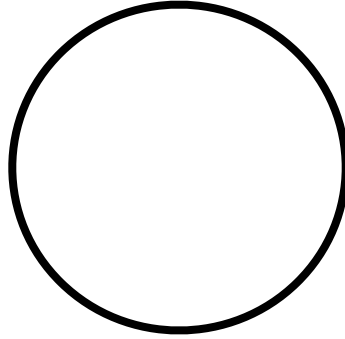


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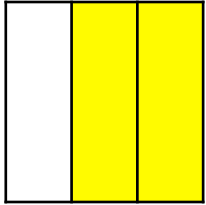
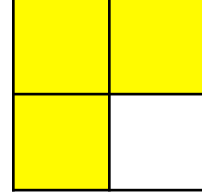




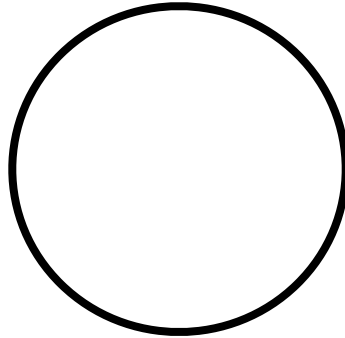
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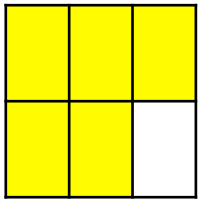
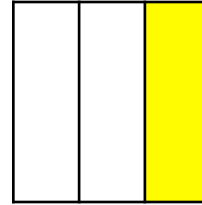
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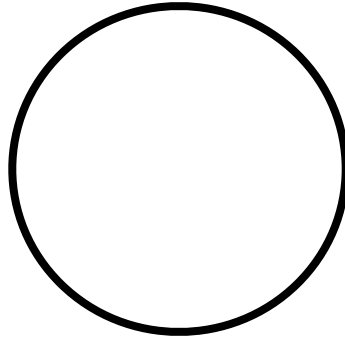
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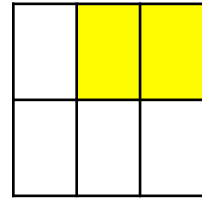
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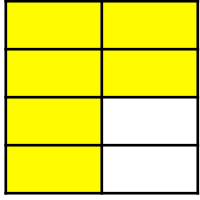


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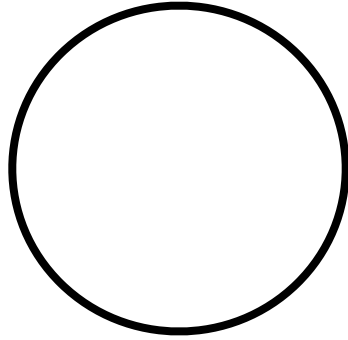


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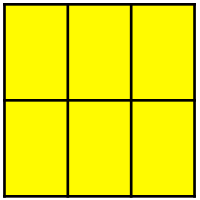




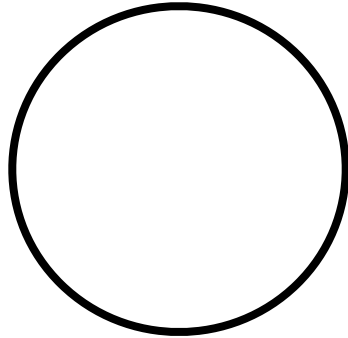
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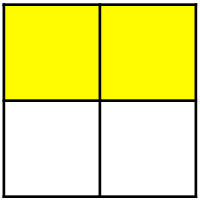
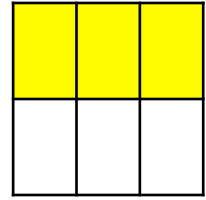
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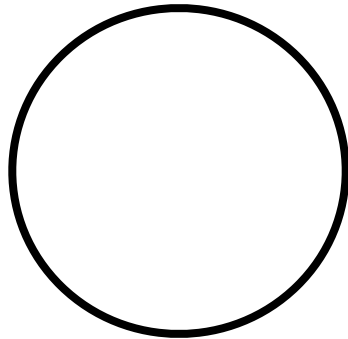
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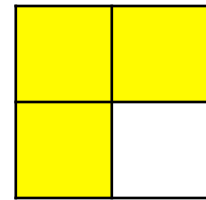
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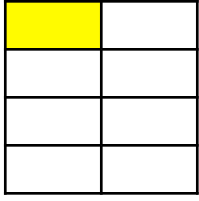


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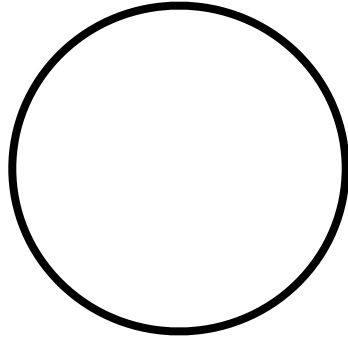


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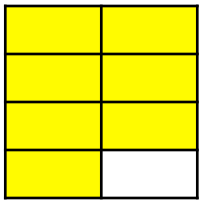




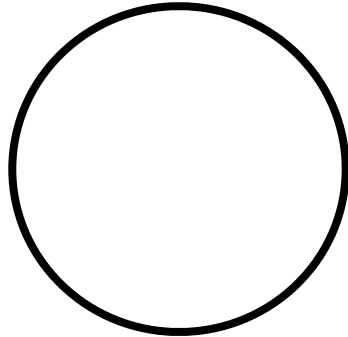
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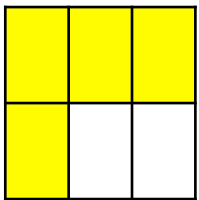
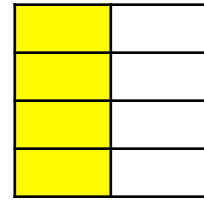
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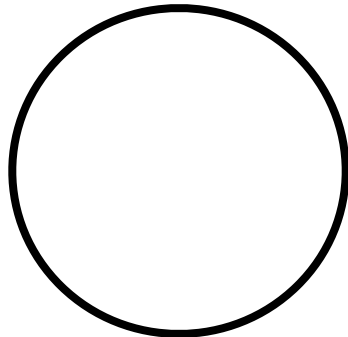
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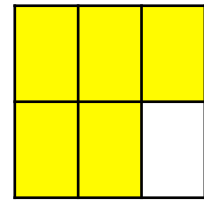
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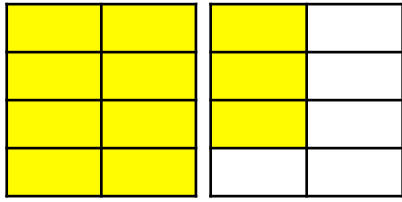


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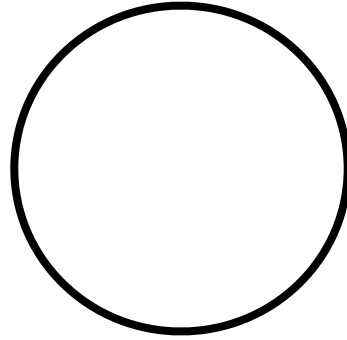


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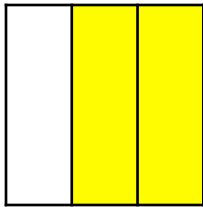
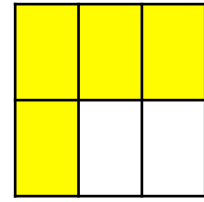




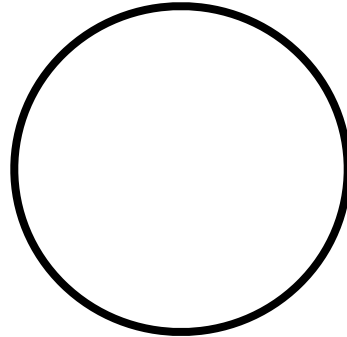
$$\frac{11}{8}$$



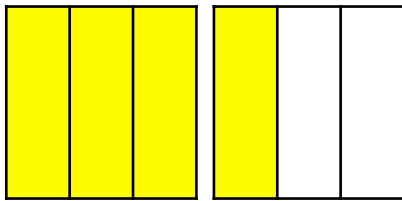
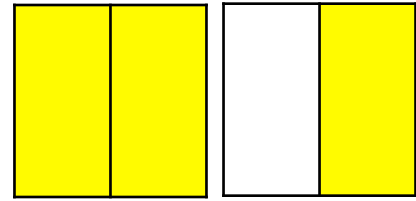
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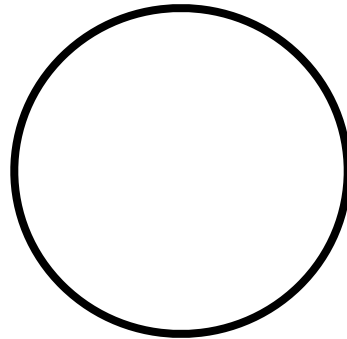
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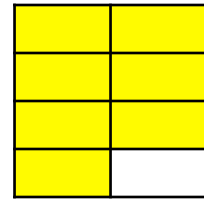
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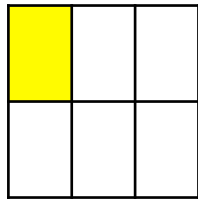
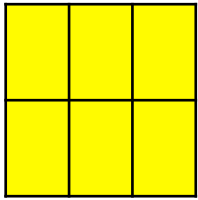


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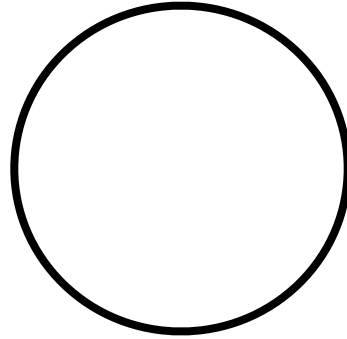


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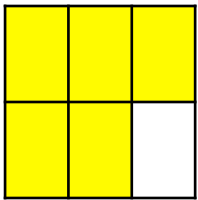
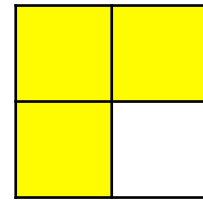




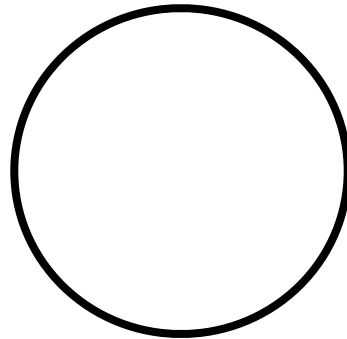
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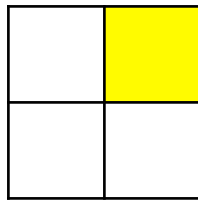
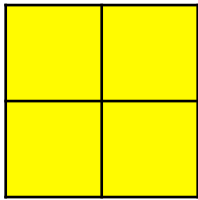
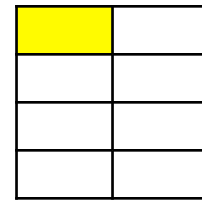
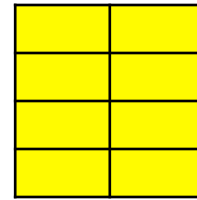
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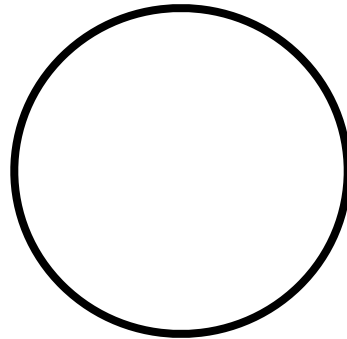
$$\frac{5}{6}$$



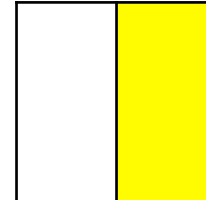
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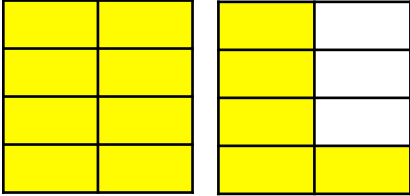
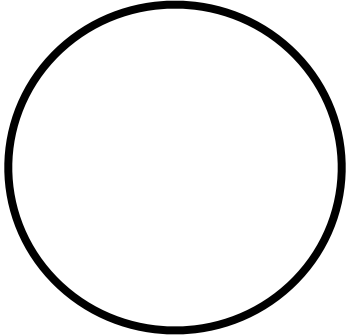
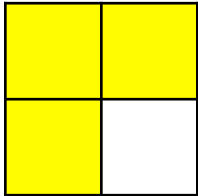


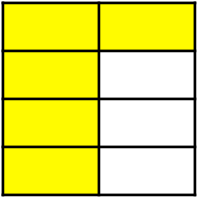
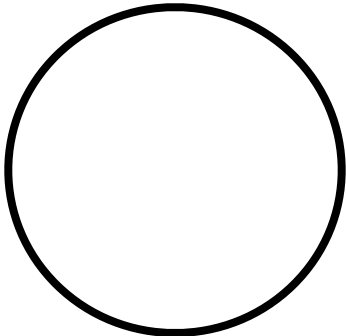
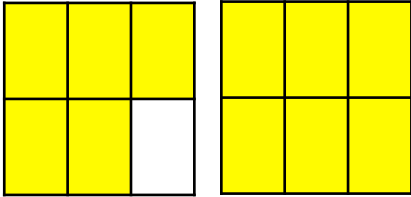
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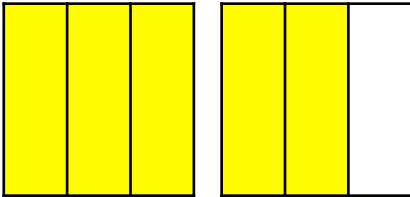
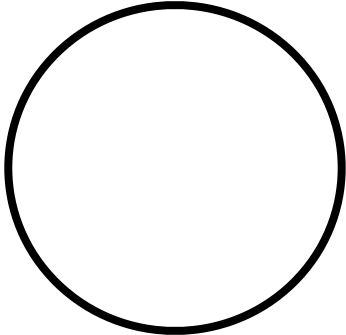
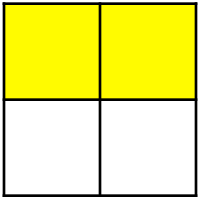


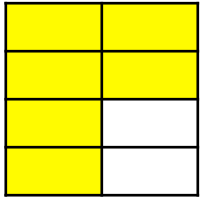
$$\frac{1}{2}$$



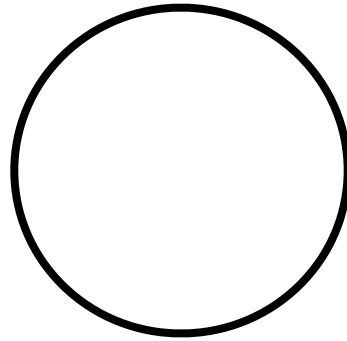

 $\frac{13}{8}$

 $\frac{3}{4}$



 $\frac{5}{8}$

 $\frac{11}{6}$


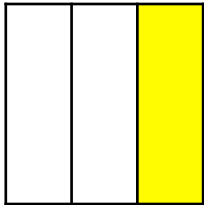
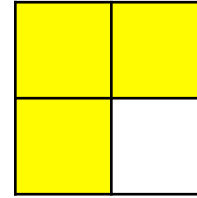

 $\frac{5}{3}$

 $\frac{2}{4}$




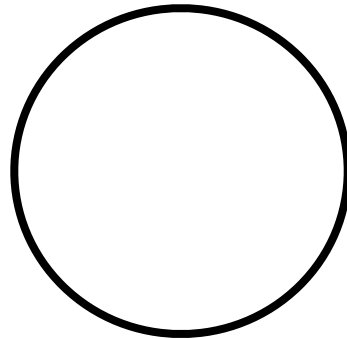
$$\frac{6}{8}$$



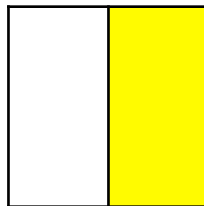
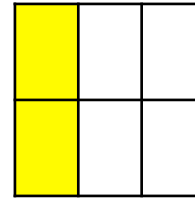
$$\frac{3}{4}$$



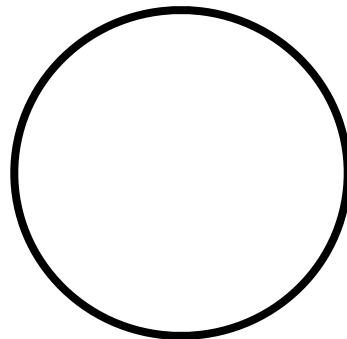
$$\frac{1}{3}$$



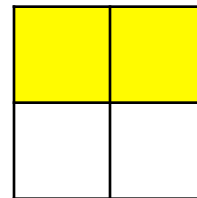
$$\frac{2}{6}$$

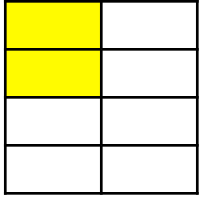


$$\frac{1}{2}$$

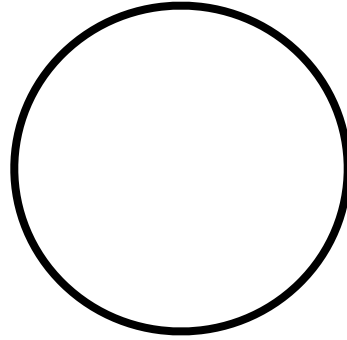


$$\frac{2}{4}$$

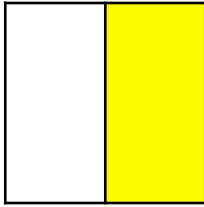
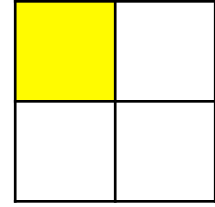




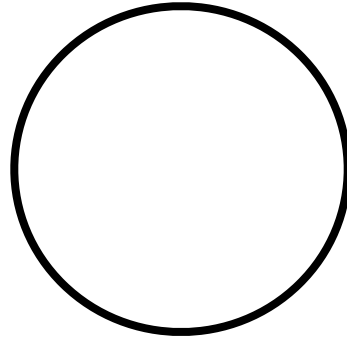
$$\frac{2}{8}$$



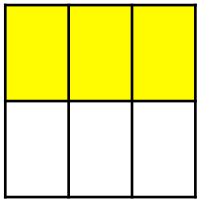
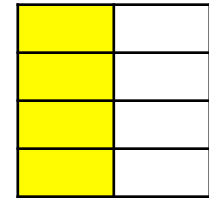
$$\frac{1}{4}$$



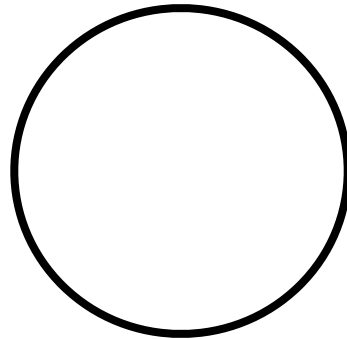
$$\frac{1}{2}$$



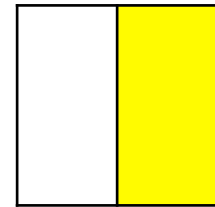
$$\frac{4}{8}$$



$$\frac{3}{6}$$

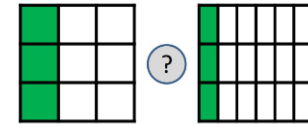


$$\frac{1}{2}$$



Compare Fractions of a Whole

Materials: fraction cards showing two models



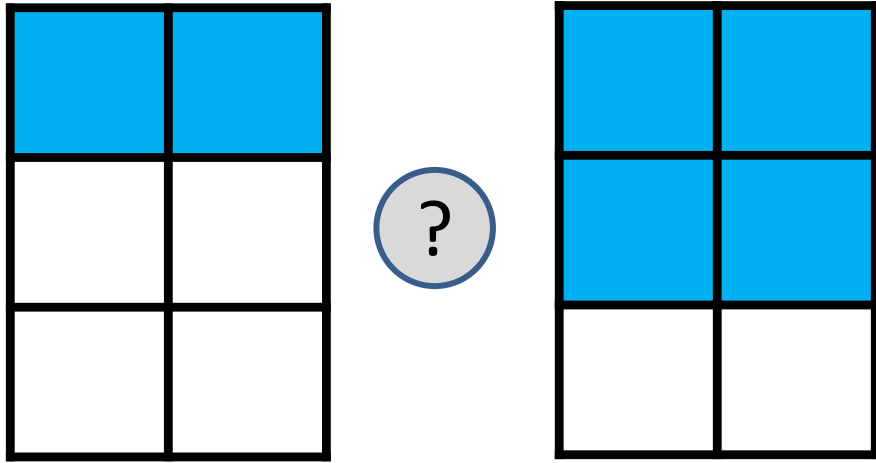
1. Choose a fraction card. Look closely at each model to determine how many total parts are in the whole (denominator) and how many equal parts are shaded (numerator).
2. Compare the fractions using the symbols $<$, $>$, or $=$. Explain your reasoning using pictures, words and numbers.
3. Repeat with other cards.

Example:

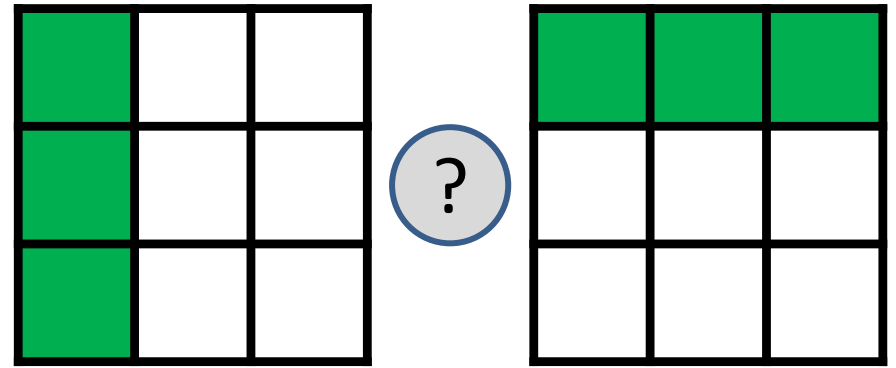
$\frac{4}{5} > \frac{2}{5}$ because 4 pieces that are fifths are more than 2 pieces that are fifths.

4. How can you compare two fractions with the same denominator that refer to the same whole? How can you compare two fractions with the same numerator that refer to the same whole? Explain.

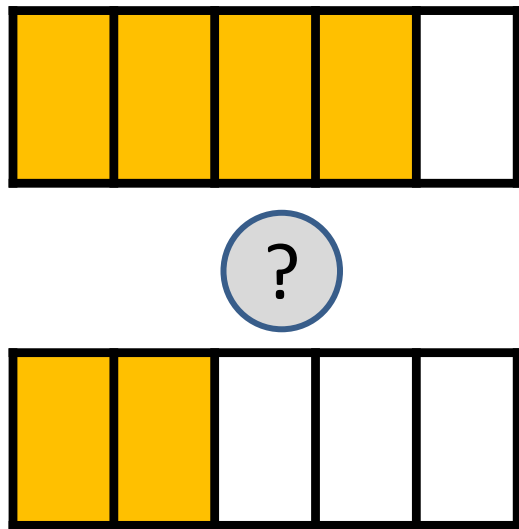
A.



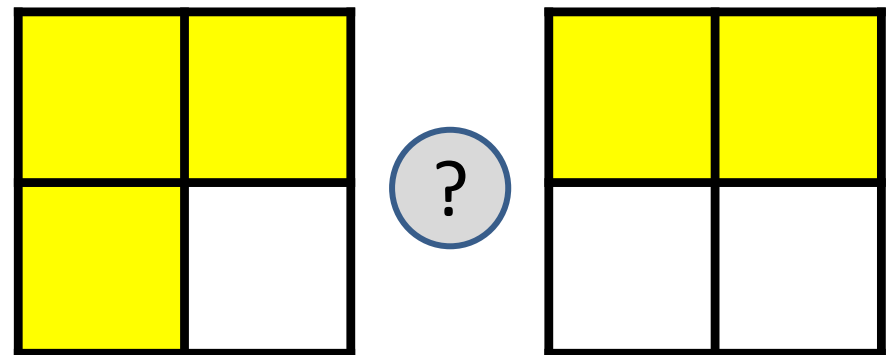
B.



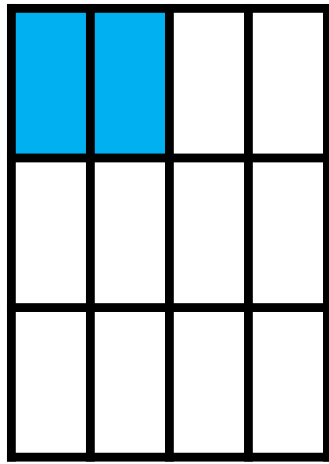
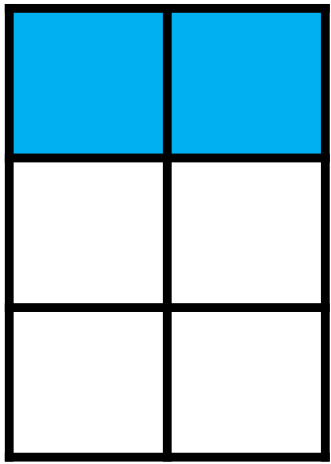
C.



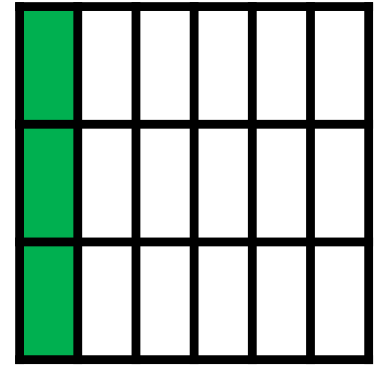
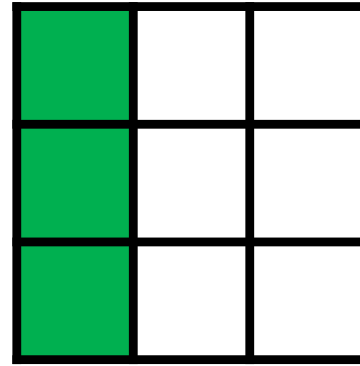
D.



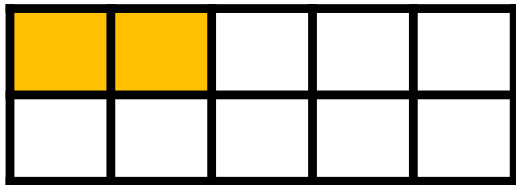
E.



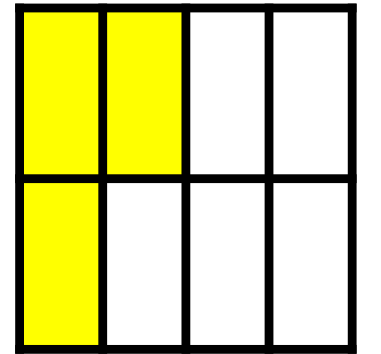
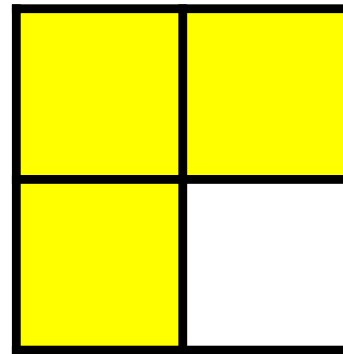
F.



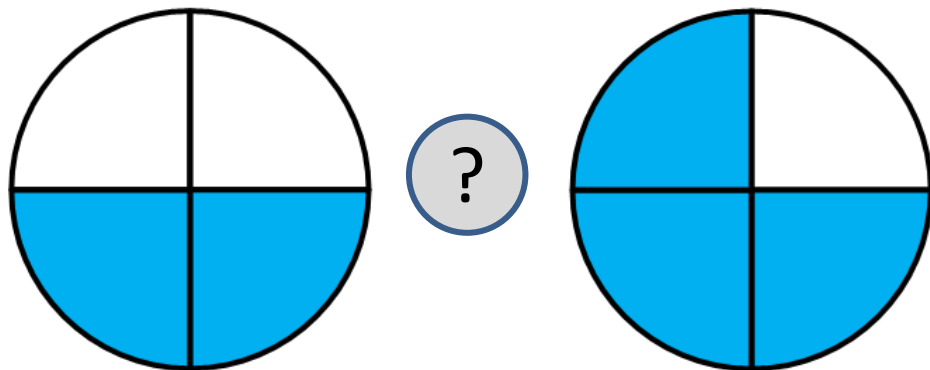
G.



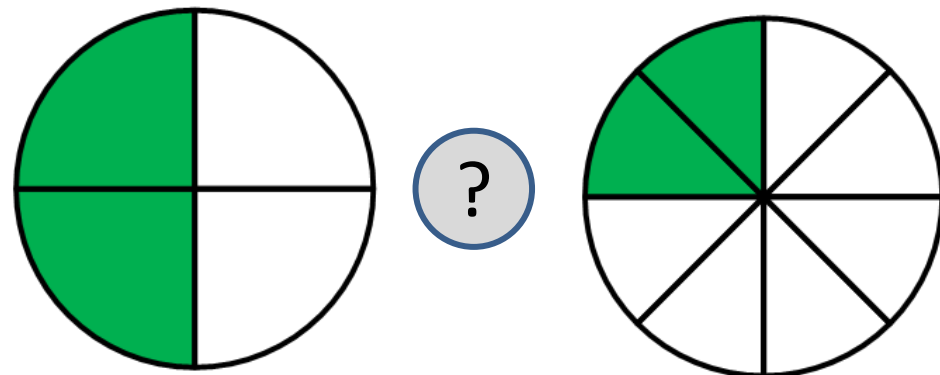
H.



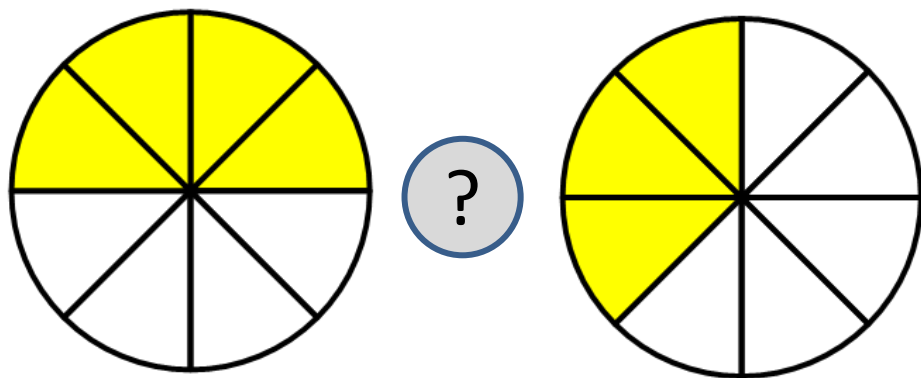
I.



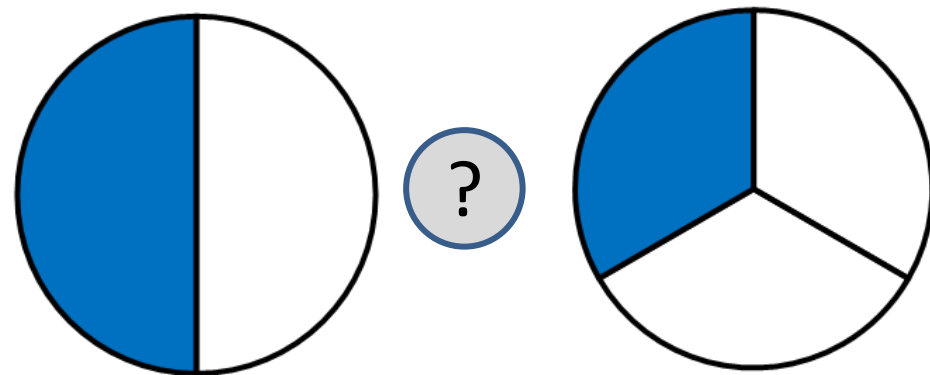
J.



K.



L.



☆ Guided Practice *

Do You Understand?

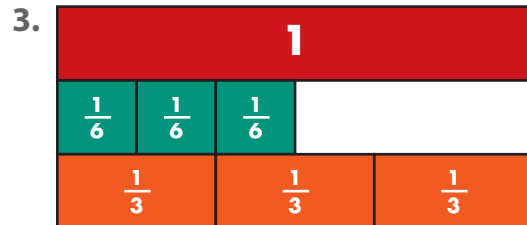
1. **MP.2 Reasoning** How can fraction strips help you reason about size to find whether $\frac{4}{6}$ or $\frac{4}{8}$ of the same whole is greater?

2. Which is greater, $\frac{1}{4}$ or $\frac{1}{6}$? Draw fraction strips to complete the diagram and answer the question.

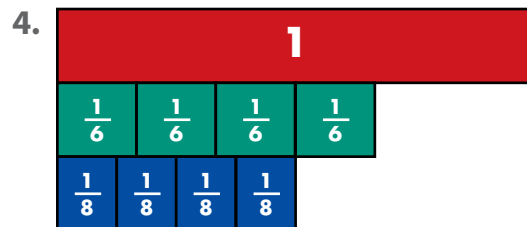


Do You Know How?

In **3** and **4**, compare. Write $<$, $>$, or $=$. Use fraction strips to help.



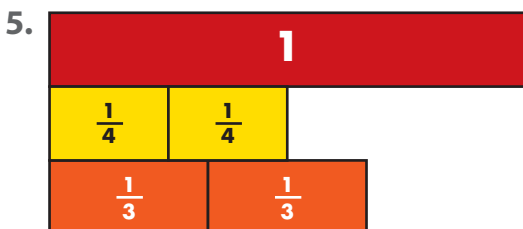
$$\frac{3}{6} \bigcirc \frac{3}{3}$$



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

☆ Independent Practice ☆

Leveled Practice In **5–14**, compare. Write $<$, $>$, or $=$. Use or draw fraction strips to help. The fractions refer to the same whole.



$$\frac{2}{3} \bigcirc \frac{2}{4}$$



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

7. $\frac{2}{3} \bigcirc \frac{2}{2}$

8. $\frac{4}{8} \bigcirc \frac{4}{8}$

9. $\frac{5}{6} \bigcirc \frac{5}{8}$

10. $\frac{1}{4} \bigcirc \frac{1}{3}$

11. $\frac{1}{3} \bigcirc \frac{1}{6}$

12. $\frac{4}{6} \bigcirc \frac{4}{6}$

13. $\frac{1}{8} \bigcirc \frac{1}{2}$

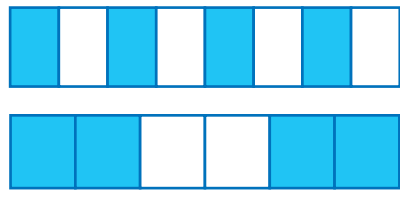
14. $\frac{2}{6} \bigcirc \frac{2}{3}$

*For another example, see Set D on page 724.

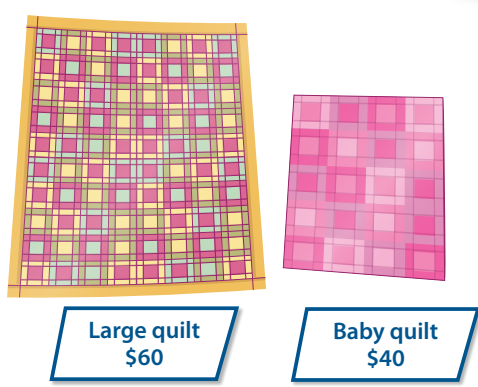
Math Practices and Problem Solving

15. © **MP.3 Critique Reasoning** James uses blue and white tiles to make the two designs shown here. Each design is the same size. James says that the blue area in the top design is the same as the blue area in the bottom design. Is he correct? Explain.

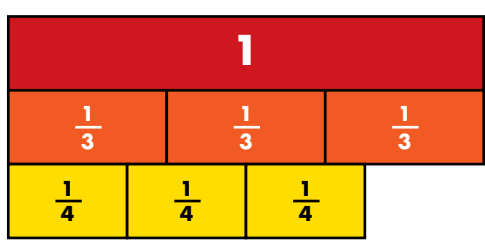
Each whole is the same size. So, you can compare the fractions the blue tiles represent in each whole.



16. Amy sold 8 large quilts and 1 baby quilt. How much money did she make from selling quilts?



17. © **MP.6 Be Precise** Write two comparison statements about the fractions shown below.



18. **Higher Order Thinking** John says that when you compare two fractions with the same numerator, you look at the denominators because the fraction with the greater denominator is greater. Is he correct? Explain, and give an example.

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19. These fractions refer to the same whole. Which of these comparisons are correct? Choose all that apply.

- $\frac{5}{6} < \frac{5}{8}$
 $\frac{2}{4} > \frac{2}{3}$
 $\frac{1}{2} > \frac{1}{4}$
 $\frac{5}{6} = \frac{5}{6}$
 $\frac{3}{4} > \frac{3}{6}$