LESSON MAKER PRO

Fraction Face-Off

Compare fractions by using equal-length bars.

GRADE 4 · 4.NF.2c

4.NF.2c "Compare two fractions with different numerators and different denominators by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Justify the conclusions by using a visual fraction model."

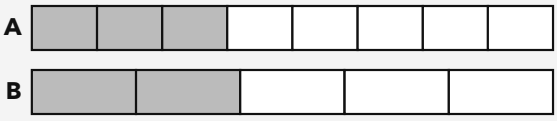
NAME _____ DATE _____

THE BIG IDEA

When two bars are the same length, the bar with more shaded space shows the greater fraction. You can split the parts in both bars into smaller, equal pieces to make a fair comparison. You can also compare each shaded amount to half a bar.

WORKED EXAMPLE

Which bar has more shaded space? Write a fraction comparison.

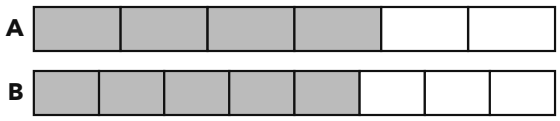


1. Bar A shows 3/8. Bar B shows 2/5.
2. Split each eighth into 5 pieces and each fifth into 8 pieces. Both bars now have 40 equal pieces.
3. Bar A has 15/40 shaded. Bar B has 16/40 shaded.

Answer: 3/8 < 2/5. Bar B has more shaded space.

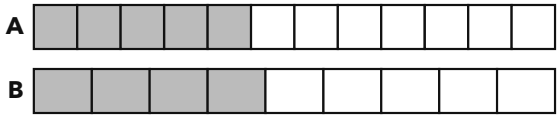
PRACTICE 6 problems

1 Which bar has more shaded space, A or B? Write a fraction comparison and tell how splitting the bars into 24 parts proves it.



ANSWER _____

2 Which bar has more shaded space, A or B? Write a fraction comparison and tell how splitting the bars into 36 parts proves it.



ANSWER _____

3 Compare 7/10 and 4/9. Sketch two equal-length bars. Use half of each bar to explain your comparison.

ANSWER _____

4 Compare 4/7 and 3/10. Sketch two equal-length bars. Use half of each bar to explain your comparison.

ANSWER _____

5 Which bar has more shaded space, A or B? Write a fraction comparison and tell how splitting the bars into 18 parts proves it.

A



B



ANSWER _____

6 Which bar has more shaded space, A or B? Write a fraction comparison and tell how splitting the bars into 24 parts proves it.

A



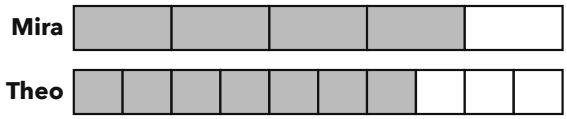
B



ANSWER _____

APPLY IT Show your work

1 In a game, Mira and Theo filled equal-size power meters. The bars show how much each player filled. Who filled more? Use the bars to explain.



ANSWER _____

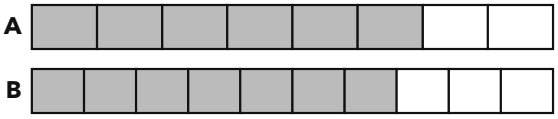
2 Sam used 5/8 of a roll of tape for a poster. Noor used 2/3 of an equal-size roll for a model. Who used more tape? Sketch equal-length bars to explain.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A student says bar B shows more because it has 7 shaded parts and bar A has only 6. Is the student correct? Write a fraction comparison and use the bars to explain.



WORK SPACE AND ANSWER

ANSWER KEY

Fraction Face-Off

GRADE 4 · 4.NF.2c

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Which bar has more shaded space, A or B? Write a fraction comparison and tell how splitting the bars into 24 parts proves it.	**A; 4/6 > 5/8. With 24 equal parts, 16/24 > 15/24.**
2	Which bar has more shaded space, A or B? Write a fraction comparison and tell how splitting the bars into 36 parts proves it.	**B; 5/12 < 4/9. With 36 equal parts, 15/36 < 16/36.**
3	Compare 7/10 and 4/9. Sketch two equal-length bars. Use half of each bar to explain your comparison.	**7/10 > 4/9. The sketch shows 7/10 shaded beyond half a bar and 4/9 shaded less than half a bar.**
4	Compare 4/7 and 3/10. Sketch two equal-length bars. Use half of each bar to explain your comparison.	**4/7 > 3/10. The sketch shows 4/7 shaded beyond half a bar and 3/10 shaded less than half a bar.**
5	Which bar has more shaded space, A or B? Write a fraction comparison and tell how splitting the bars into 18 parts proves it.	**A; 5/6 > 7/9. With 18 equal parts, 15/18 > 14/18.**
6	Which bar has more shaded space, A or B? Write a fraction comparison and tell how splitting the bars into 24 parts proves it.	**A; 5/8 > 7/12. With 24 equal parts, 15/24 > 14/24.**

PART 2 · APPLY IT

1. **Mira filled more. Her 4/5 is 8/10, which is greater than Theo's 7/10.** Split each fifth in Mira's bar into 2 equal pieces. Her bar has 8 of 10 pieces shaded, while Theo's has 7 of 10.
2. **Noor used more tape. Her 2/3 is 16/24, while Sam's 5/8 is 15/24.** Sketch equal-length bars split into eighths and thirds, then divide the parts further to make 24 equal pieces in each bar. Noor's bar has one more piece shaded.

CHALLENGE

No. 6/8 > 7/10. The parts have different sizes: if each bar is split into 40 equal pieces, A has 30 shaded pieces and B has 28.

Accept any correct visual explanation, including equal-length bar sketches that use a common denominator or show each fraction's position relative to half a bar.