



FRACTIONS UNIT TEST REVIEW

The Fraction Unit Test is scheduled for _____. Use this review to help you prepare for this assessment. Make sure you are familiar with the following vocabulary.

VOCABULARY: product, quotient, numerator, denominator, simplify, equivalent, least common denominator, mixed number, improper fraction, simplify factors, invert, reciprocal.

DIRECTIONS: **FIRST** FILL IN THE HINT BOXES TO HELP YOU BEGIN THINKING ABOUT EACH PROBLEM. **THEN**, ANSWER THE FOLLOWING QUESTIONS REFERRING TO YOUR CLASS NOTES, IF NEEDED.

PART I: COMPARING AND ORDERING FRACTIONS

Compare the following fractions using $<$, $>$, or $=$. Show your thinking.

1. $\frac{3}{6}$ _____ $\frac{1}{2}$

2. $\frac{2}{9}$ _____ $\frac{3}{10}$

3. $\frac{1}{2}$, $\frac{4}{5}$, $\frac{1}{10}$, $\frac{2}{5}$, $\frac{7}{10}$

Hint Box:

How do you compare fractions with the same denominator?

What do you need to do when comparing fractions with different denominators?

PART II: EQUIVALENT FRACTIONS

Write an equivalent fraction.

4. $\frac{14}{21}$

Write an equivalent fraction.

5. 7

Hint Box:

What does equivalent mean?

How can you write equivalent fractions (what operations must you use?)

PART III: SIMPLIFYING FRACTIONS AND MIXED NUMBERS AND IMPROPER FRACTIONS

Simplify the following fraction.

6. $\frac{33}{72}$

Change the following mixed number to an improper fraction.

7. $3\frac{6}{7}$

Change the following improper fraction to a mixed number.

8. $\frac{55}{8}$

Hint Box:

How do you know when a fraction is in simplest form?

Hint Box:

How do you change a mixed number to an improper fraction?

How do you change an improper fraction to a mixed number?

PART IV: FRACTION MULTIPLICATION AND DIVISION

Find the products or quotients by simplifying factors.

9. $\frac{2}{8}$ of 38

10. $\frac{8}{9} \times \frac{15}{6}$

Hint Box:

What are some words to describe multiplication?

What is the first step when multiplying mixed numbers?

What is meant by simplifying factors and why do we do it?

Find the products or quotients by simplifying factors.

11. $3\frac{1}{3} \times 2\frac{7}{10}$

12. $\frac{11}{28} \times 8$

13. $\frac{2}{5} \div \frac{8}{25}$

14. $6\frac{3}{4} \div 4\frac{1}{2}$

15. $\frac{3}{4} \div 12$

16. $2\frac{4}{5} \div \frac{28}{40}$

17. $6 \div 1\frac{5}{16}$

18. $\frac{7}{12} \div 2\frac{5}{8}$

Hint Box:

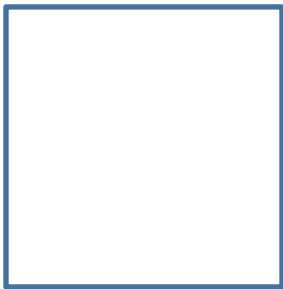
What does KFC stand for? When do you use it?

What is the first step when dividing mixed numbers?

PART V: MODELING MULTIPLICATION AND DIVISION

19. Anthony wants to buy $\frac{1}{3}$ of a pan of brownies that is $\frac{3}{4}$ full. What fraction of the whole pan does he buy?

- Express this in a math sentence _____
- Use modeling to demonstrate your thinking. Use two different colors or patterns.



Hint Box:

Why is the product of

$\frac{4}{5}$ and $\frac{2}{3}$ less than $\frac{2}{3}$?

Why is the quotient of 3
and $\frac{1}{2}$ larger than 3?

20. How many two-thirds are in 5?

- Express this in a math sentence _____
- Use modeling to demonstrate the problem in the space below.



PART VI: MULTIPLICATION AND DIVISION OF FRACTIONS IN THE REAL WORLD

21. $\frac{1}{3}$ of the 96 markers in the box are black, and $\frac{1}{2}$ of them are red.
The rest are blue.

- How many markers are black?
- How many markers are red?
- How many markers are blue?

Hint Box:

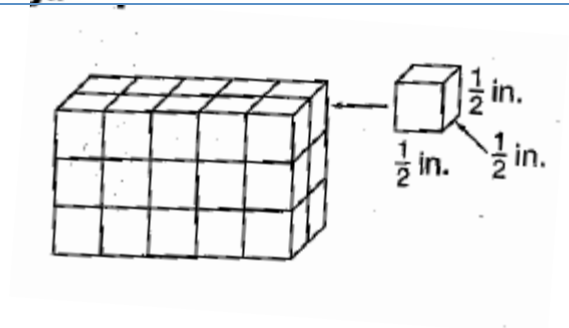
What is the key word for
multiplication?

How do you know when to
use division?

22. Mr. Mooney wants to sort boxes of envelopes into three equal piles for a math activity. He has $2\frac{1}{4}$ boxes of envelopes. How much of a box will be in each pile?

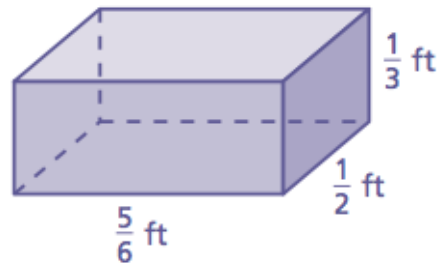
PART VII: VOLUME

23. Find the volume of the figure to the right.



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24. A box shown is packed with small $\frac{1}{6}$ - inch cubes.

How many cubes are in the box?



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25. Determine the volume of the rectangular prism with the following dimensions.

length = $\frac{8}{15}$ in. width = $2\frac{1}{4}$ in. height = $\frac{7}{12}$ in.

Hint Box:

What is the volume formula?

Is it possible to use the simplifying factors method when multiplying more than 2 fractions?