

Constructing Fractions

Thursday 11/13/08

Name:
Homeroom:
Mr. Z.'s Science Class
11/13/08

Do-now: Fractions in measurement review

For the area units that we used last week, we discovered that...

$$1 \text{ white} = 4 \text{ blues}$$

$$1 \text{ blue} = 4 \text{ reds}$$

1. Fill in the following math sentences, using fractions:

$$1 \text{ blue} = \underline{\hspace{1cm}} \text{ white}$$

$$1 \text{ red} = \underline{\hspace{1cm}} \text{ blue}$$

$$1 \text{ red} = \underline{\hspace{1cm}} \text{ white}$$

2. Write out in words how you would say each of the following:

a) $\frac{5}{8}$ red

b) $1\frac{1}{4}$ white

c) $2\frac{3}{7}$ blue

3. Convert the following into whites. Your answer will be a fraction or mixed number.

a) 3 blues =

b) 1 white + 5 reds =

c) 2 whites + 3 blues + 1 red

Constructing fractions

4. Cut up one of your reds into halves, one into fourths, and one into eighths. Write " $\frac{1}{2}$ ", " $\frac{1}{4}$ ", and " $\frac{1}{8}$ " on the pieces as appropriate.
5. Do the same with the blues.
6. Lay out pieces to show each of the following:
- a) $\frac{3}{4}$ blue
- b) $\frac{5}{8}$ red
- c) $\frac{4}{8}$ blue
- d) $\frac{2}{4}$ blue
7. What is similar about the last two measurements you created? What is different?
8. Lay out pieces to show each of the following:
- a) $1\frac{3}{8}$ red
- b) $2\frac{1}{4}$ blue
- c) $3\frac{5}{8}$ red
- d) 1 blue + $\frac{1}{2}$ red + $\frac{3}{4}$ blue + $\frac{5}{8}$ red
9. The measurement in part b above is the same length as $\frac{9}{4}$ blue. What would be different about how you would show the measurement $\frac{9}{4}$ blue?

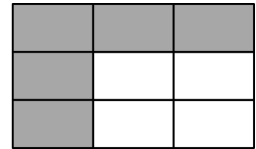
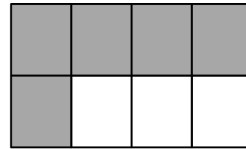
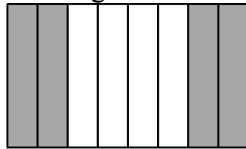
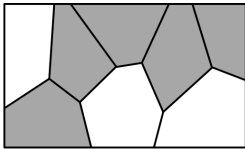
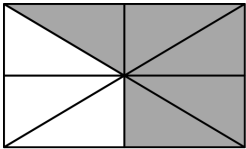
Which is longer?

For each of the following problems, circle the measurement that is longer.

10. $\frac{3}{8}$ red or $\frac{1}{4}$ blue
11. $\frac{5}{8}$ blue or $\frac{3}{4}$ red
12. $\frac{7}{8}$ blue or $1\frac{3}{8}$ red
13. $1\frac{1}{4}$ red or $\frac{3}{4}$ blue
14. $2\frac{3}{8}$ red or $1\frac{5}{8}$ blue
15. $\frac{7}{4}$ blue or $\frac{5}{2}$ red
16. $1\frac{3}{4}$ red + $\frac{7}{8}$ blue or $1\frac{1}{8}$ blue + $\frac{5}{4}$ red

Constructing Fractions Homework

1. Circle all of the boxes below that are exactly five eighths full.



2. Let's call the wide, narrow box in these pictures a "bar". Write in what measurement I am trying to show with each of the following:



3. In the previous problem...
- a) Compare and contrast the measurements shown in parts a and b.
 - b) Compare and contrast the measurements shown in parts c and d.

4. Using the bar as a unit, draw each of the following measurements:

