

Week 7 notes

3/1/22

MTE 280 Fractions

What is a whole?

meanings

- * Part/Whole
- * Quotient
- * Ratio

~~Whole~~
Whole
20 students

12 girls	8 boys
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Part Part

boys = $\frac{8}{20}$ fraction
 |
 Whole

Girls $\frac{12}{20}$ part
 Wholes

Models: Area
 Length
 Set

Fractional parts are equal parts

$$4/4 = 1$$

$$\frac{1}{2} = \frac{2}{4} = \frac{4}{8} = \frac{8}{16}$$

The more you cut the smaller they get

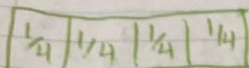
equivalent fractions

$$25/100 \div \frac{25}{25} = \frac{1}{4}$$

- Greatest common factor

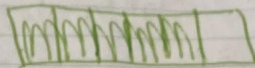
MTE 280

Fractions Part 2



$$\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$$

Same denominator



$$\frac{2}{6} + \frac{3}{6} = \frac{5}{6}$$

Find the common multiples

$$\frac{1}{4} + \frac{1}{6}$$

4, 8, 12, 16, 20, 24

6, 12, 18, 24

$$\frac{1}{4} \cdot \frac{3}{3} = \frac{3}{12} \quad \frac{1}{6} \cdot \frac{4}{4} = \frac{4}{24}$$

$$\frac{6}{24} + \frac{4}{24} = \frac{10}{24} \div 2 = \frac{5}{12}$$

$$\frac{1}{4} \cdot \frac{3}{3} = \frac{3}{12} \quad \frac{3}{12} + \frac{2}{12} = \frac{5}{12}$$

$$\frac{1}{6} \cdot \frac{2}{2} = \frac{2}{12}$$

$$\frac{4}{6} + \frac{2}{3}$$

$$\begin{array}{r} 3, 6, 9, 12, 15, 18 \\ 6, 12, 18, 24 \end{array}$$

$$\frac{4}{6} \cdot \frac{2}{2} = \frac{8}{12}$$

$$\frac{8}{12} + \frac{8}{12} = \frac{16}{12} \div \frac{4}{4} = \frac{4}{3}$$

$$\frac{2}{3} \cdot \frac{4}{4} = \frac{8}{12}$$

$$\frac{4}{6} \cdot \frac{3}{3} = \frac{12}{18}$$

$$\frac{12}{18} + \frac{12}{18} = \frac{24}{18} \div \frac{6}{6} = \frac{4}{3}$$

$$\frac{2}{3} \cdot \frac{6}{6} = \frac{12}{18}$$