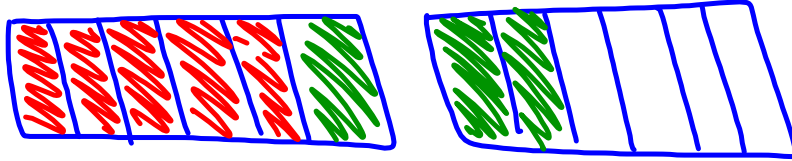


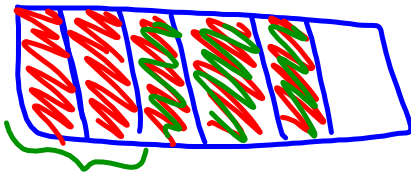
Warm-Up: Create one diagram each represent the sum and difference of

$$\frac{5}{6} \text{ and } \frac{3}{6}$$

SUM



DIFFERENCE



$$\begin{array}{r} 3.1 \\ \hline \end{array} \quad \frac{181}{100} - \frac{31}{100}$$

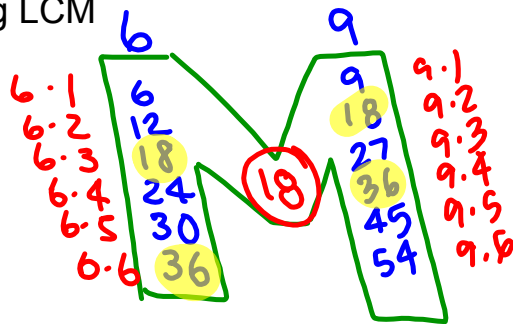
$$\frac{150}{100} = 1\frac{1}{2}$$

3.2 Least Common Multiple

Of two whole numbers is the smallest whole number divisible by both those numbers

Ex 1 Finding LCM

a) 6 and 9



$$LCM(6, 9) = 18$$

b) 5 and 8

- 5: 5, 10, 15, 20, 25, 30, 35, 40
 8: 8, 16, 24, 32, 40, 48

$$LCM(5, 8) = 40$$

Ex 2 Using Prime Factorization (no exponents)

a) 9 and 12

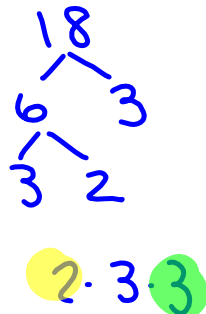
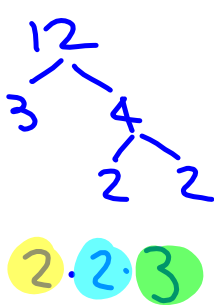
$$9: 3 \cdot 3$$

$$12: 2 \cdot 2 \cdot 3$$

$$3 \cdot 3 \cdot 2 \cdot 2 = 36$$

$$LCM(9, 12) = 36$$

b) 12, 18, 20



$$2 \cdot 2 \cdot 3 \cdot 3 \cdot 5 = 180$$

$$LCM(12, 18, 20) = 180$$

common #

Ex 3 More Prime Factorization Method

a) 5, 6, 35

$$5: 5$$

$$6: 2 \cdot 3$$

$$35: 5 \cdot 7$$

$$LCM(5, 6, 35) = 5 \cdot 2 \cdot 3 \cdot 7 = 210$$

b) 10, 20, 24

$$10: 2 \cdot 5$$

$$20: 2 \cdot 2 \cdot 5$$

$$24: 2 \cdot 2 \cdot 2 \cdot 3$$

$$2 \cdot 2 \cdot 5 \cdot 2 \cdot 3 = 20 \cdot 6$$

$$LCM(10, 20, 24) = 120$$

Ex 4 Reverse Division Method

a) 14 and 21

7	14	21
3	2	3
2	2	1
	1	1

$$7 \cdot 3 \cdot 2 = 42$$

b) 6, 15, 10

3	6	15
5	2	5
2	2	1
	1	1

$$2 \cdot 3 \cdot 5 = 30 = LCM(6, 15)$$

Ex 5 Writing a New Denominator

a) Write $\frac{2}{3}$ with a denominator of 15

b)

$$\frac{2}{3} = \frac{10}{15}$$