

Pre-Algebra
January 2-6

- Tuesday, January 3, 2012
- SW find the LCM of two or more numbers and find the LCD of two or more fractions
- 1. SW complete a review quiz upon entering the classroom
- 2. CW review student notes on how to find the LCM of a set of numbers and the LCD of a set of fractions
- 3. SW work on class work assignment with a partner
- 4. SW begin homework if time permits

- Least Common Multiple
the smallest nonzero multiple of 2 or more numbers
- Least Common Multiple of Monomials
LCM also includes variables
- Least Common Denominator (LCD)
Smallest nonzero mult of the denom. of 2 or more fractions
- Compare and Order Fractions. $\frac{1}{2}, b, \frac{2}{6}, \frac{5}{20}$
 - 1) Find LCD of all fractions
 - 2) Convert all fractions using LCD
 - 3) Compare [$<, >, =$] Order = Least to greatest
→ Final answer must use original fractions

- Find the LCM
M1 = find multiples M2 = Prime Factorization
Find highest
- 1. 6, 8, 12, 18, 24, 30
6: 2, 3 8: 2, 2, 2 12: 2, 2, 3 18: 2, 3, 3 24: 2, 2, 2, 3 30: 2, 3, 5
- 2. 120, 180
120: 2, 2, 2, 3, 5 180: 2, 2, 3, 3, 5
- 3. $24a^3b, 30a, 120a^3b$
 $24: 2 \cdot 2 \cdot 2 \cdot 3$ $30: 2 \cdot 3 \cdot 5$ $120: 2^3 \cdot 3 \cdot 5$
- 4. $12x^2y^2, 6y^3$
 $12x^2y^3$

- Find the LCD
- 1. $\frac{3}{8}$ and $\frac{7}{10}$
8: 2^3 10: $2 \cdot 5$ $2^3 \cdot 5 = 8 \cdot 5 = 40$ LCD = 40
- 2. $\frac{7}{8}$ and $\frac{13}{20}$
8: 2^3 20: $2^2 \cdot 5$ $2^3 \cdot 5 = 40$ LCD = 40
- 3. $\frac{3}{5}$ and $\frac{5}{8}$
5: 5 8: 2^3 LCD = $2^3 \cdot 5 = 40$

- Compare and Order Rational Numbers
- 1. $\frac{2}{3} > \frac{5}{9}$ $\frac{6}{9} > \frac{5}{9}$
- 2. $\frac{4}{5} > \frac{3}{7}$
- 3. $\frac{7}{6}, \frac{3}{10}, \frac{1}{7}, \frac{2}{7}, \frac{63}{420}, \frac{42}{420}, \frac{120}{420}, \frac{1}{10}, \frac{3}{20}, \frac{1}{6}, \frac{2}{7}$
6: $2 \cdot 3$ 7: 7 10: $2 \cdot 5$ 14: $2 \cdot 7$ 21: $3 \cdot 7$ 30: $2 \cdot 3 \cdot 5$ 42: $2 \cdot 3 \cdot 7$ 70: $2 \cdot 5 \cdot 7$ 120: $2^3 \cdot 3 \cdot 5$
- 4. $\frac{3}{5}, \frac{7}{5}, \frac{5}{7}, \frac{1}{4}, \frac{1}{7}$
10: $2 \cdot 5$ 14: $2 \cdot 7$ 20: $2^2 \cdot 5$ 28: $2^2 \cdot 7$ 35: $5 \cdot 7$ 42: $2 \cdot 3 \cdot 7$ 70: $2 \cdot 5 \cdot 7$ 140: $2^2 \cdot 5 \cdot 7$

- Class Work: Page 259; 3-12 every third, 13
- Homework: Page 259; 17-29 every third, 30-46 even
- Read and take notes on pages 263-265

- Wednesday, January 4, 2012
 - SW add and subtract unlike fractions
1. SW complete a review quiz upon entering the classroom
 2. CW review student notes on how to add and subtract unlike fractions, by first finding the LCD
 3. SW work on class work assignment with a partner
 4. SW begin homework if time permits

- Unlike Fractions
 - Adding Unlike Fractions:
 - 1) Find LCD of the fractions
 - 2) Multiply num & denominator by the same number
 - 3) Add the numerators only. The denominator is the LCD
 - 4) Simplify if needed
 - Subtracting Unlike Fractions:

Mixed Numbers

Same as above but in Step 3 you subtract

 - 1) Turn into improper fractions
- Handwritten notes:*
 $\frac{1}{2} + \frac{1}{3}$
 LCD = 6
 $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$

- Find each sum or difference.
1. $\frac{1}{2} + \frac{1}{5}$
 LCD = 10
 $\frac{5}{10} + \frac{2}{10} = \frac{7}{10}$
 2. $\frac{3}{4} + \frac{5}{14}$
 LCD = 28
 $\frac{21}{28} + \frac{10}{28} = \frac{31}{28} = 1\frac{3}{28}$
 3. $\frac{3}{4} - \frac{8}{9}$
 LCD = 36
 $\frac{27}{36} - \frac{32}{36} = -\frac{5}{36}$

4. $\frac{2}{3} + \frac{1}{8}$
5. $-\frac{8}{9} + \frac{5}{12}$
 LCD = 36
 $-\frac{32}{36} + \frac{15}{36} = -\frac{17}{36}$
6. $7\frac{1}{6} - 6\frac{5}{8}$
 LCD = 24
 $\frac{43}{6} - \frac{53}{8} = \frac{172}{24} - \frac{159}{24} = \frac{13}{24}$

7. $3\frac{3}{5} + (-4\frac{5}{6})$
 8. $5\frac{1}{3} - (-4\frac{5}{9})$
 $5 + 4 + \frac{3}{9} + \frac{5}{9} = 9\frac{8}{9}$
- Insects** The speed of a hornet is $13\frac{3}{10}$ mph. The speed of a dragonfly is $17\frac{4}{5}$ mph. How much faster is the dragonfly than the hornet?

