

Find the LCM of each.

1) $12x$, $36y$

2) $24y^3x$, $40x^3y$

3) $16y^2$, $24y^2$

4) $30a^3b$, $40a^3$

5) $10b^2a^2$, $14a^2$

6) $27ab^2$, $18b$

Stations

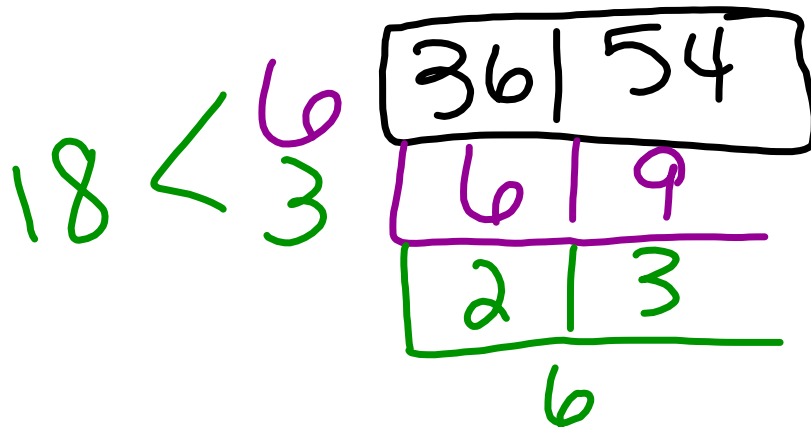
- LCM
- GCF (Delta Math)
- Factoring (Delta Math)
- Simplifying Expressions
(instructions)

Rational Functions - skills building

- LCM
- GCF
- Factoring
- Simplifying Expressions

Least Common Multiple - Ladder method

36, 54



GCF: 18

LCM: $18 \times 6 = 108$

Find LCM

$$1) 44, 14 = 308, \quad \begin{matrix} \text{LCM} & \text{GCF} \\ & 2 \end{matrix}$$

$$2) 8, 42 = 168, \quad 2$$

$$3) 16, 60 = 240, \quad 4$$

$$4) 60, 66 = 660, \quad 6$$

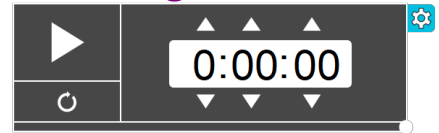
$$\text{GCF} = 6 \quad \begin{array}{|c|c|} \hline 60 & 66 \\ \hline 10 & 11 \\ \hline \end{array} \quad \begin{matrix} \diagdown \\ \diagup \end{matrix} \quad 110$$

GCF and Factoring

Delta Math

- create account
- class code (328623)
- complete assignments

Warm up (whiteboards): complete the following:



Factor the following:

A. $x^2 - 8x - 20$

B. $5y^2z + 15z^5$

Perform the following operations

C.

D.

Glue in unit divider (front) and page title(back)

Go to blog and copy notes (Simplifying rational expressions) on next page (pgs. 7-8)

Lesson 1: Simplifying Rational Expressions

What is a rational expression?

A **rational expression** is a quotient of two polynomials. Other examples of rational expressions include the following:

$$\frac{x^2 - 4}{x + 2}$$

$$\frac{10}{x^2 - 6}$$

$$\frac{x + 3}{x - 7}$$

Steps to simplify:

1. Factor numerator and denominator
2. State excluded values
 - set factors equal to zero and solve (only in denominator); these are value "x" cannot be.
3. Simplify by cancelling like factors in numerator and denominator.

*****Remember: try to factoring using one or more of the following:**

- GCF

-Difference of squares

-Factoring

Examples:

$$1. \frac{x^2 + 2x - 8}{3x + 12}$$

$$\frac{x^2 - 9}{5x - 15}$$

$$\frac{x^2 - 2x - 3}{x^2 + x - 12}$$



