Algebra Lesson 11-1 Rational Expressions

Simplifying Rational Expressions

Due Today: 11-1 p.532 #5-17 odd; #25

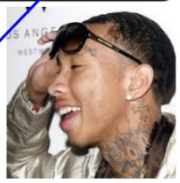
Due Tomorrow: 11-1B p.532 #4-16 even, 27-31 odd

You can only cancel factors, NOT terms.

Things you multiply

Things you add or subtract

You can only cancel factors, NOT terms.



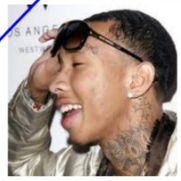
Things you multiply

Things you add or subtract

$$\frac{3 \cdot x}{x}$$

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

You can only cancel factors, NOT terms.



Things you multiply

Things you add or subtract

3	2
5	6

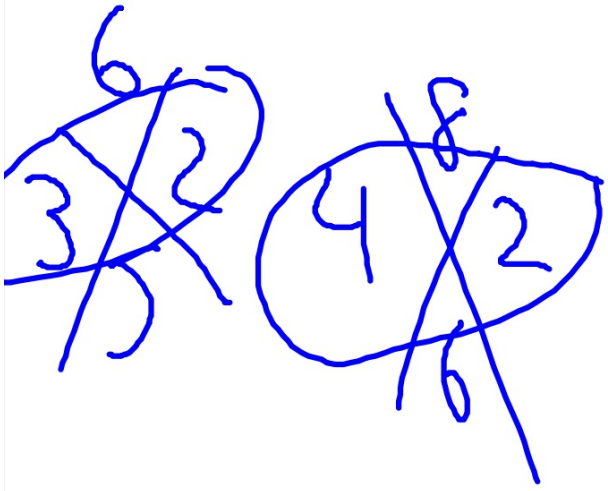
$$\frac{x^2+5x+6}{x^2+3x} = \frac{(x+3)(x+2)}{x(x+3)} = \frac{x+2}{x}$$

$$\frac{3x^2+6x}{6x}$$

$$\frac{3x(x+2)}{3\cdot 2\cdot x}$$

$$\frac{x+2}{2}$$

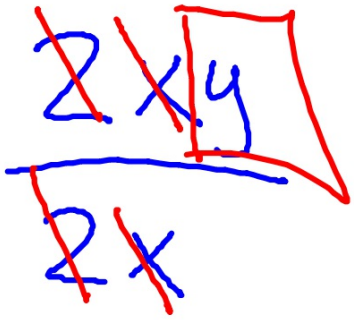
$$\frac{x^2+5x+6}{x^2+6x+8} = \frac{(x+3)(x+2)}{(x+4)(x+2)}$$

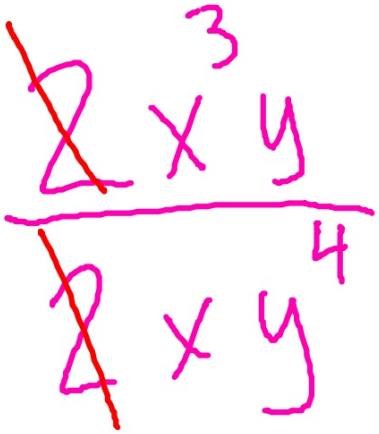


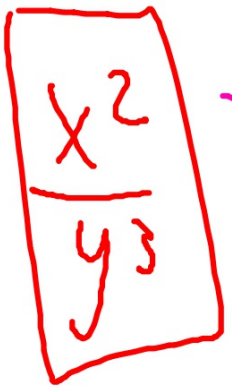
① Factor top and bottom

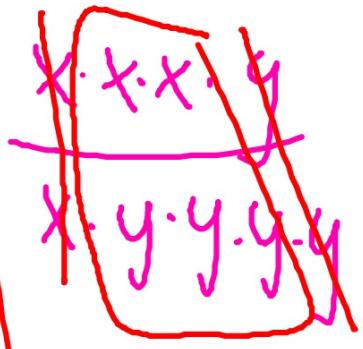
② Cancel factors

You can only cancel factors, NOT terms.



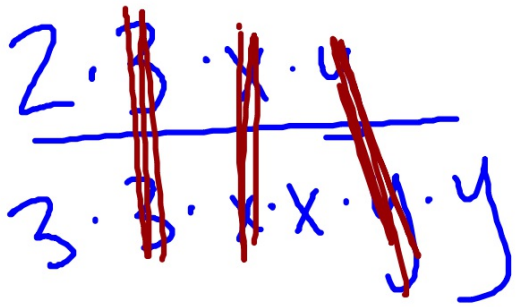






$$\frac{4x^3y^2}{2xy^4} \qquad \frac{2 \cdot 2x^2}{2y^2} \qquad \boxed{\frac{2x^2}{y^2}}$$

$$\frac{6xy}{9x^2y^2}$$

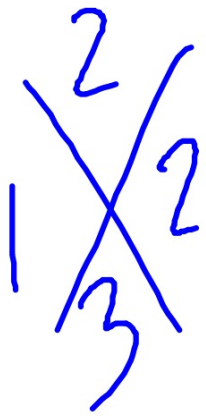


$$\frac{2}{3xy}$$

$$\frac{4x+2}{2x+1} = \frac{2(2x+1)}{2x+1}$$

$$2$$

$$\frac{3x+3}{x^2+3x+2} = \frac{3\cancel{(x+1)}}{\cancel{(x+1)}(x+2)}$$



$$\frac{3}{x+2}$$