

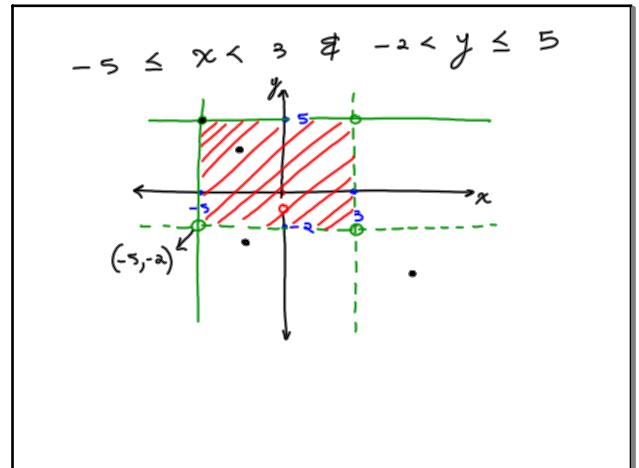
September 7, 2016

Tending the Region

$< >$ $x > 3$

$\leq \geq$ $x \leq -5$

Sep 7-1:33 PM



Sep 7-1:44 PM

* *Fundamental Principal*

$$\frac{a}{b} \cdot \frac{c}{c} = \frac{a \cdot c}{b \cdot c} = \frac{a}{b} \cdot 1 = \frac{a}{b}$$

$a, b, c \in$ the Integers \mathbb{Z}

element of

① $\frac{5}{x^2y} \cdot \frac{2xy}{2xy} = \frac{10xy}{2x^3y^2}$

Equivalent Fractions

② $\frac{16}{28} = \frac{2 \cdot 2 \cdot 2 \cdot 2}{2 \cdot 2 \cdot 7} = \frac{1 \cdot 1 \cdot 2 \cdot 2}{1 \cdot 1 \cdot 7} = \frac{4}{7}$

Sep 7-1:53 PM

Operations on Fractions

① *Multiplication*

$$\frac{a}{b} \cdot \frac{c}{d} = \frac{ac}{bd}$$

$$\frac{5}{x} \cdot \frac{2}{y} = \frac{10}{xy}$$

Sep 7-2:02 PM

② *Division*

$$\frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \cdot \frac{d}{c} = \frac{ad}{bc}$$

Keep Change flip to

$$\frac{\frac{a}{b} \cdot \frac{d}{c}}{\frac{c}{d}} = \frac{a}{b} \cdot \frac{d}{c} = \frac{ad}{bc}$$

Sep 7-2:04 PM

③ *+ or - Like denominators*

$$\frac{a}{b} \pm \frac{c}{b} = \frac{a \pm c}{b}$$

$$\frac{4}{x-2} + \frac{3}{x-2} = \frac{4+3}{x-2} = \frac{7}{x-2}$$

Sep 7-2:06 PM

④ + or - Unlike Denominators

$$\frac{a}{b} \pm \frac{c}{d} = \frac{ad \pm bc}{bd} \leftarrow \text{LCD}$$

#1) $\frac{4}{\frac{3}{4} - \frac{3}{2}} = \frac{\frac{4}{1}}{\frac{3-6}{4}} = \frac{\frac{4}{1} \cdot \frac{4}{4}}{-\frac{3}{4} \cdot \frac{4}{4}} = \frac{4 \cdot 4}{1 \cdot -3} = \frac{16}{-3} = -\frac{16}{3}$

Sep 7-2:08 PM