Write to Learn - Sloppy, disorganized

Write to Communicate - Include context of the question & clean step-by-step.

↳ "Answer Key" homework is worth 40%, max.

I still have 5 P.6, P.7 videos to finish.

$$\frac{\frac{3x^2-7}{\sin x}}{\frac{25x-7}{x^2-7x+4}}$$

Short report-writing style & habits.

I'll direct you to some written solutions on the course p

12

4, $\sqrt{3x+4} = -4$

Nevah!

$\sqrt{3(4)+4} = -4$

$\sqrt{16} = -4$

$4 = -4$?!

$\sqrt{stuff} \geq 0$ always!

$\sqrt{x^2}$

$|x|$

$\sqrt{x^2} = |x|$!

why? $|x| = \begin{cases} x & \text{if } x \geq 0 \\ -x & \text{if } x < 0 \end{cases}$

$x=3$: $\sqrt{3^2} = \sqrt{9} = 3 = x$

$x=-3$: $\sqrt{(-3)^2} = \sqrt{9} = 3 = -(-3) = -x$!

So $\sqrt{x^2}$ behaves JUST like $|x|$!

Thus, $x^2 = 25 \Rightarrow$

$\sqrt{x^2} = \sqrt{25} \Rightarrow$

$|x| = 5 \Rightarrow$

$x = \pm 5$

The $\pm$ comes from Absolute value.

$\frac{5}{12} - \frac{2}{21}$

$12 = 2 \cdot 2 \cdot 3$

$21 = 3 \cdot 7$

$LCD = 2 \cdot 2 \cdot 3 \cdot 7$

$\left(\frac{5}{2 \cdot 2 \cdot 3}\right)\left(\frac{7}{7}\right) - \left(\frac{2}{3 \cdot 7}\right)\left(\frac{2 \cdot 2}{2 \cdot 2}\right)$

$\frac{35 - 8}{LCD} = \frac{27}{LCD} = \frac{27}{84}$

$84 = 2 \cdot 2 \cdot 3 \cdot 7$

$27 = 3 \cdot 3 \cdot 3$

$= \frac{3 \cdot 3 \cdot 3}{2 \cdot 2 \cdot 3 \cdot 7}$

$= \boxed{\frac{9}{28}}$

$\frac{2}{x^2 - 3x + 2} + \frac{5}{x^2 - 1}$

$(x-2)(x-1)$

$(x-1)(x+1)$

$LCD = (x-1)(x+1)(x-2)$

$\left(\frac{2}{(x-2)(x-1)}\right)\left(\frac{x+1}{x+1}\right) + \left(\frac{5}{(x-1)(x+1)}\right)\left(\frac{x-2}{x-2}\right)$

$= \frac{2(x+1) + 5(x-2)}{LCD} = \frac{2x + 2 + 5x - 10}{LCD} = \boxed{\frac{7x - 8}{LCD}}$