

August 25, 2015

- * Quiz #2 - Friday
- * My Algebra Success Guide #1 - Due Friday
- * Math Jam Fridays @ 12:00 pm - 2:00pm Room 320

Aug 25-9:55 AM

Prep

#20) $\frac{4x+8}{15} \div \frac{5x+10}{10}$

$$\frac{4x+8}{15} \cdot \frac{10}{5x+10}$$

$$\frac{4(x+2)}{15} \cdot \frac{2}{5(x+2)}$$

$$\frac{4(x+2)}{15} \cdot \frac{2}{(x+2)} = \frac{4}{15} \cdot \frac{2}{1} = \frac{8}{15}$$

Aug 25-10:07 AM

$\frac{5x+10}{10} + 5x$

$x=10$ $\frac{5(10)+10}{10} = \frac{50+10}{10} = \frac{60}{10} = 6$

$5(10) = 50$
And $50 \neq 6!$

① $\frac{5x+10}{10} = \frac{5(x+2)}{10} = \frac{x+2}{2}$

② $\frac{5x}{10} + \frac{10}{10} = \frac{x}{2} + 1$

$\frac{x+2}{2} = \frac{x}{2} + 1$ You should be able to show why!

Aug 25-10:14 AM

#22) $f(x) = \frac{1-4x}{x^2-2x-15}$ Function

Find the Domain of "f"

Valid inputs

machine: "f"

Input	Software	output
x	$\frac{1-4x}{x^2-2x-15}$	$\frac{3}{16}$
1	$\frac{1-4(1)}{(1)^2-2(1)-15}$	y
	$\frac{1-4}{1-2-15}$	
	$\frac{-3}{-16}$	
	$\frac{3}{16}$	

Aug 25-10:20 AM

$x^2 - 2x - 15 = 0$

Quadratic

$(x-5)(x+3) = 0$

$\frac{3x}{-5x} - 2x$

① $x-5=0$ $x=5$

② $x+3=0$ $x=-3$

D: $\{x \mid x \in \mathbb{R} \text{ \& } x \neq 5 \text{ \& } x \neq -3\}$

such that element of Real Numbers

Aug 25-10:29 AM

#18) $x^3 + 64$ Sum of Two Cubes

$a^3 \pm b^3 = (a \pm b)(a^2 \mp ab + b^2)$

$a = x$
 $b = 4$

$(x+4)(x^2-4x+16)$

$x^3 - 4x^2 + 16x - 16x + 64$

$x^3 + 64$

Aug 25-10:38 AM