

homework tally if you need help
on a problem :)



please pick up

**THE
WARM UP**

① combine and simplify

FIND
Common
Denominator

$$\frac{x}{2} \cdot \frac{(3x)}{(3x)} - \frac{2}{x} \cdot \frac{(6)}{(6)} + \frac{x}{6} \cdot \frac{(x)}{(x)}$$

$$\frac{3x^2 - 12 + x^2}{6x}$$

$$\frac{4x^2 - 12}{6x} \rightarrow \frac{2 \cancel{4}(x^2 - 3)}{3 \cancel{6}x}$$

$$\boxed{\frac{2(x^2 - 3)}{3x}}$$

② now multiply

$$\frac{x}{2} \bullet \frac{-2}{x} \bullet \frac{x}{6}$$

$$\frac{x \cdot x \cdot -2}{2 \cdot x \cdot 6} \rightarrow \frac{-1 \cdot -2x^2}{6 \cdot 12x}$$

$$\boxed{\frac{-x}{6}}$$

③ solve the equations:

Hint: clear fractions

clear fractions

$$\frac{2}{x} - 2 + \frac{6}{x^2} = 0$$

$$\frac{2(x^2)}{x} - \frac{2(x^2)}{1} + \frac{6(x)}{x^2}$$

$$2x - 2x^2 + 6 = 0$$

$$-2x^2 + 2x + 6 = 0$$

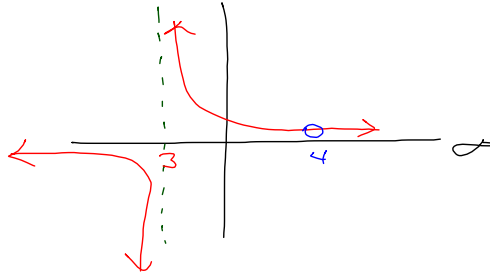
d

November 06, 2017

⑤ Analyze and describe the discontinuities of the function:

$$y = \frac{2x - 8}{(x+3)(x-4)}$$

NOTE!
need an
extra set of
[] around
denominator.



Vertical Asymptote at $x = -3$

Hole at $x = 4$

$$\frac{\cancel{2} \cancel{B} - 8}{(\cancel{B} + 3)(\cancel{B} - 4)}$$

$$\frac{2\cancel{B}}{\cancel{B}^2 \cancel{B}} = \frac{2}{\cancel{B}}$$

⑥ factor

$$3x^2 - 27x$$

$$3x(x - 9)$$

⑥ factor

$$3x^2 - 27$$

$$3(x^2 - 9)$$

$$3(x+3)(x-3)$$

⑥ factor

$$4x^2 - 4$$

$$4(x^2 - 1)$$

$$4(x-1)(x+1)$$

$$\frac{8}{4}$$

hw
questions

Ch. 3 TEST (tomorrow)

- in class practice
- closure assignment
- extra practice also available

110

determine if 2 expressions are equivalent

p. 162

CL 3-129

home work
packet
DUE tomorrow

110 ← 11 assignments

d

November 06, 2017

a

$$n(2n+1)(2n-1) \stackrel{?}{=} 4n^2 - n$$

Handwritten notes:

- Red arrows and circles around the expression $n(2n+1)(2n-1)$ showing the expansion process.
- Red text: $n(4n^2 - 1)$
- Red text: $4n^3 - n$
- Red text: **NOPE**
- Red text: \neq

b.

$$(2x-1)^2 \stackrel{?}{=} 4x^2 - 1$$

b.

$$(2x-1)^2 \qquad 4x^2-1$$

↓

$$(2x-1)(2x-1) \neq 4x^2-1$$

NO

c.

$$10x^2 - 55x - 105 \stackrel{?}{=} 5(2x+3)(x-7)$$

$$= 5(2x^2 - 14x + 3x - 21)$$

$$= 10x^2 - 70x + 15x - 105$$

$$= 10x^2 - 55x - 105$$

yes.

d

November 06, 2017

d.

$$\left(\frac{4x^{12}}{-2x^3} \right)^3$$

$$\stackrel{?}{=}$$

$$-8x^{12}$$

$$\frac{8 \cancel{64} x^{36}}{-1 \cancel{-8} x^{24}}$$

$$x^{36-24} \quad -8x^{12} = -8x^{12}$$

yes

e.

$$2x - 3y = 6 \quad \stackrel{?}{=}$$

$$y = \frac{2}{3}x + 6$$

$$2x - 3y = 6$$

$$-2x \quad -2x$$

$$-3y = 6 - 2x$$

$$y = \frac{6 - 2x}{-3}$$

f.

$$\sqrt{108}$$

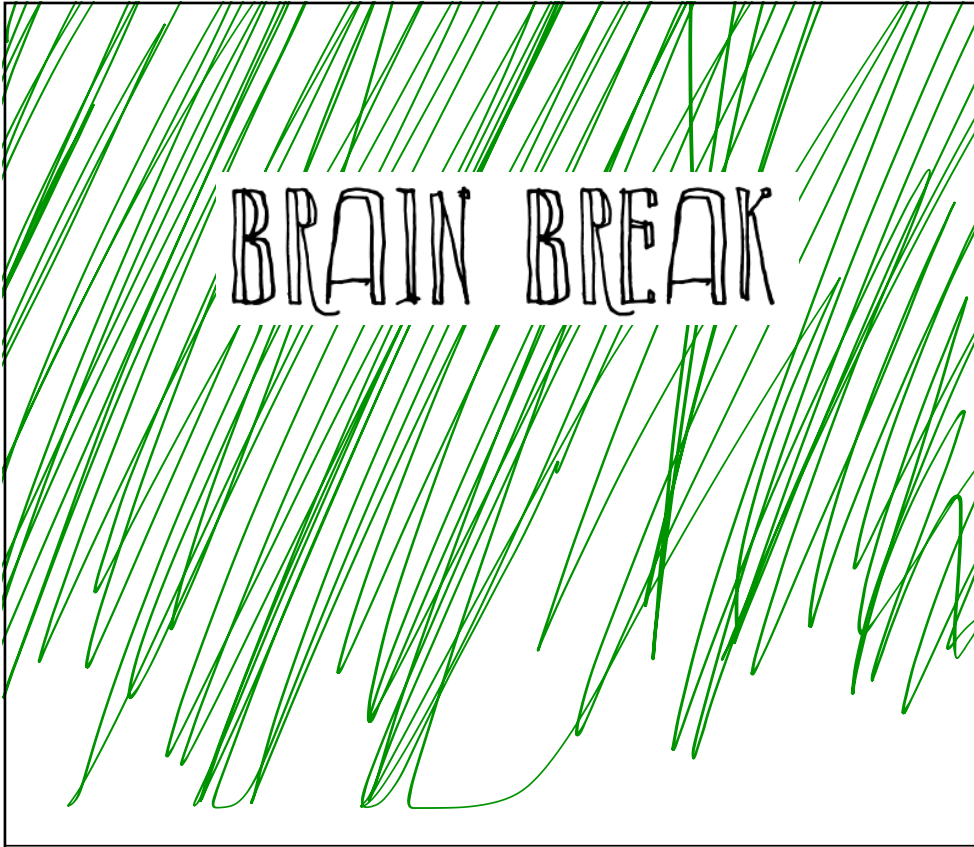
$$6\sqrt{3}$$

↓

$$\sqrt{36 \cdot 3}$$

$$\sqrt{6^2 \cdot 3} \rightarrow \boxed{6\sqrt{3}}$$





Assignment

CL 3....

127, 128a,d - 131, 133, 135-137