

homework tally if you need help
on a problem :)

please pick up



**THE
WARM UP**

① combine and simplify

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

$$\downarrow$$

$$\frac{4x^2 - 12}{6x}$$

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

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



② now multiply

$$\frac{x}{2} \cdot \frac{-2}{x} \cdot \frac{x}{6} = \frac{x}{6}$$

③ solve the equations:

Hint: clear fractions

$$\frac{x}{2} - \frac{2}{1} + \frac{6}{x^2} = 0$$

multiply all terms by $\frac{x^2}{x^2}$

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

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

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

$$0 = x^2 - x - 3$$

$$\begin{aligned} a &= 1 \\ b &= -1 \\ c &= -3 \end{aligned}$$

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$$x = \frac{-(-1) \pm \sqrt{(-1)^2 - 4(1)(-3)}}{2(1)}$$

$$x = \frac{1 \pm \sqrt{13}}{2} \quad \text{or} \quad x = \frac{1}{2} \pm \frac{\sqrt{13}}{2}$$

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.

$$\frac{2(\cancel{B})}{(\cancel{B})B} = \frac{2}{B} = \left(\frac{2}{\infty} \right)$$

VA its equation is $x = -3$

hole at $x = 4$

HA $y = 0$

⑥ factor

$$3x^2 - 27x$$

$$3x(x-9)$$

⑥ factor

$$3x^2 - 27$$

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

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

⑥ factor

$$4x^2 - 4$$

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

DOs

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

123

$W = 2 + 2x$

10

$5 + 2x$

$(5 + 2x)(2 + 2x) = 40$

124 Leadfoot Lily 80 mph

$d = \frac{15t}{80}$

$80t + 0.5$

$100t$

$80t + 0.5 = 100t$

hw
questions

Ch. 3 TEST (tomorrow)

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

determine if 2 expressions are equivalent

p. 162

CL 3-129

a.

$$n(2n+1)(2n-1)$$

$$4n^2 - n$$

b.

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

$$4x^2-1$$

b.

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

$$4x^2-1$$



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

NO

c.

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

$$5(2x+3)(x-7)$$

d.

$$\left(\frac{4x^{\frac{1}{2}}}{-2x^3} \right)^3$$

$$(-2 \cdot x^{\frac{1}{2}})^3$$

$$(-2)^3 (x^{\frac{1}{2}})^3$$

$$\underline{\underline{-8x^{\frac{3}{2}}}}$$

NOT equal $-8x^{12}$

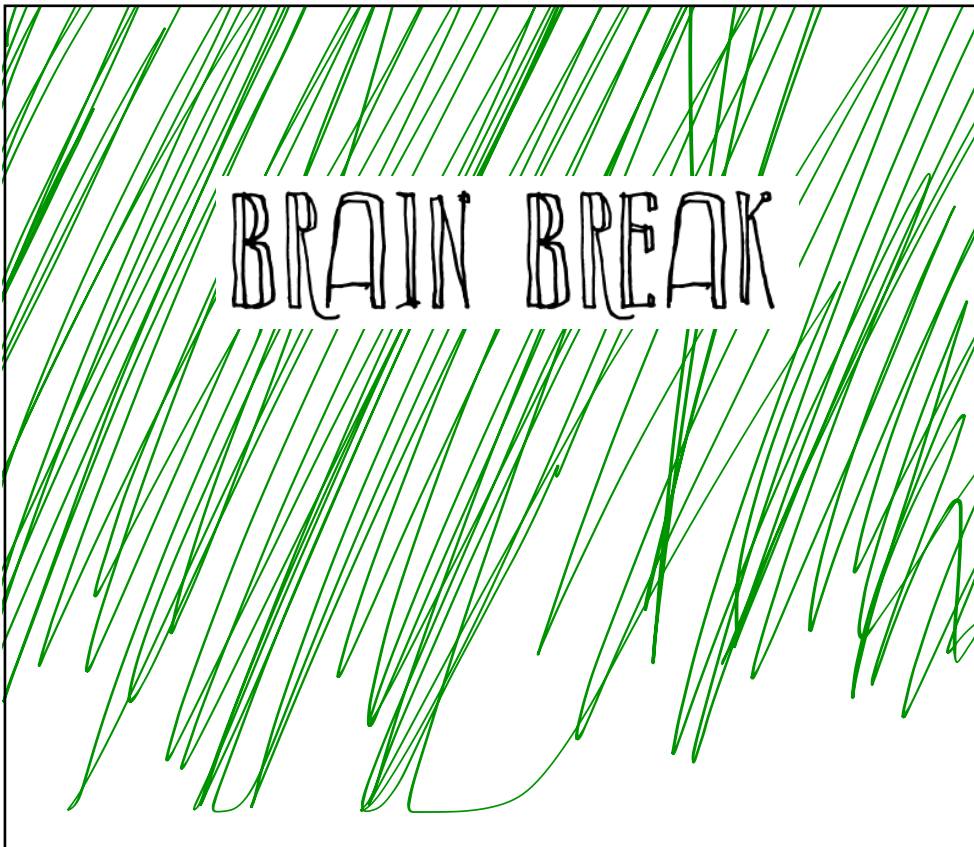
e. $2x - 3y = 6$

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

f.

$$\sqrt{108}$$

$$6\sqrt{3}$$



Ch. 3 HW
Packet due tomorrow

100

[tonight's closure assignment are
"STUDY" problems and will not
be turned in tomorrow.]

∴ you can assemble your packet
no

Study Problems

CL 3....

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

↖ check answers
shown at the end.