Pick Up the

WARM UP

HW TALLY

skip #3 for now

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

← What is the common denominator for all three ?

$\frac{- \quad +}{6x}$

$\frac{x(3x)}{2(3x)} - \frac{2(6)}{x(6)} + \frac{x(x)}{6(x)}$ ← What is the common denominator for all three ?

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

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

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

↓

$$\frac{4x^2 - 12}{6x} \rightarrow \frac{24(x^2-3)}{36x}$$

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

② Now Multiply $\frac{x}{2} \cdot \frac{-2}{x} \cdot \frac{x}{6}$

③ Solve the equation :

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

(This often get confused with problem 1).
↑ (NOTICE THE DIFFERENCE)

Clear out the fractions

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

$3x^2 - 12 + x^2 = 0$

$4x^2 - 12 = 0$

$4x^2 = 12$

$x^2 = 3$

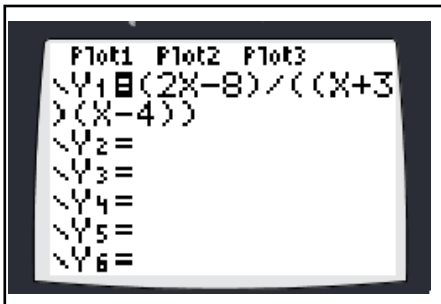
$\sqrt{\quad}\quad\sqrt{\quad}$

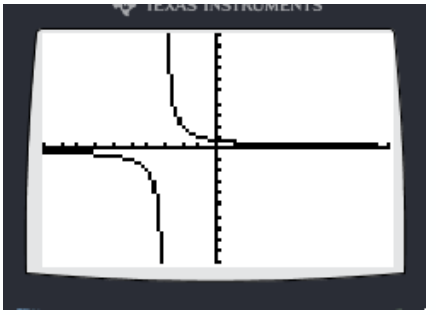
$x = \pm\sqrt{3}$

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

hole at $x=4$

VA at $x=-3$





⑥ Factor

$3x^2 - 27x \longrightarrow$ $3x(x-9)$

$3x^2 - 27 \longrightarrow$ $3(x^2-9) \rightarrow 3(x+3)(x-3)$ DOS

$4x^2 - 4$ $4(x^2-1) \rightarrow 4(x-1)(x+1)$ DOS

option 1 →

option 2 → $(2x+2)(2x-2)$

$2\cdot(x+1)\cdot 2(x-1)$

Questions on Forecasting

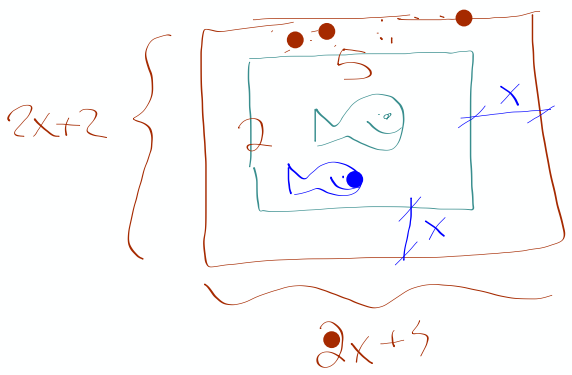
Alg 2 →

IB Mathematical Applications

Pre-Calculus **OR**
AP Statistics (2trimesters) **OR**
CS 160 (CN comp. sci. 1 tri) **OR**
AP Comp Sci. Principles (3 tri)

HW QUESTIONS

123



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

120

(a) $\frac{1}{x+2} + \frac{3}{x^2-4}$

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

$\frac{+}{(x+2)(x-2)}$

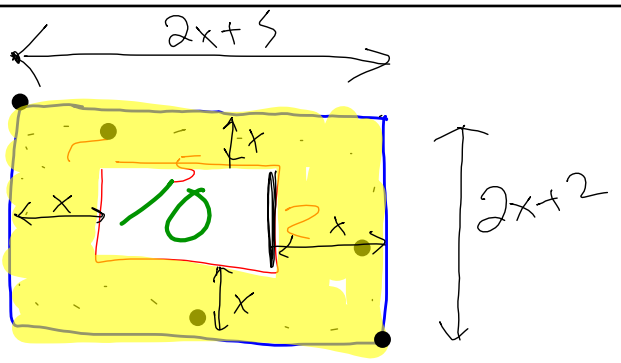
(b) $\frac{3}{2x+4} - \frac{x}{x^2+4x+4}$

(b) $\frac{3}{2x+4} - \frac{x}{x^2+4x+4}$

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

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

123

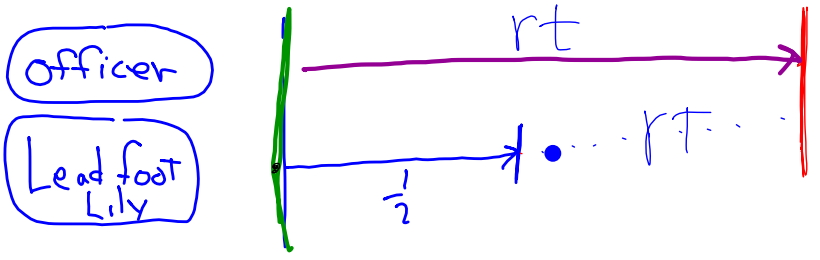


$40 = (2x+5)(2x+2)$

124 Leadfoot Lily 80 mph gets ½ mile head start
officer 100 mph

distance = rate • time

$d = rt$



When will the distance be the same?

$100t = 0.5 + 80t$

121 $\sqrt{x+2} = 8$

126 (a) $25x^2 - 1$

(b) $5x^3 - 125x$

(c) $x^2 + x - 72 = (\quad)(\quad)$

(d) $x^3 - 3x^2 - 18x$

Ch. 3 TEST Tomorrow

Assemble 95% of your HW packet in class today.

Agenda

1. Go over Helpful hints about the test
2. Arrange/staple your assignments
3. Prepare for tomorrow's Ch. 3 Test

If multiplying or dividing rational expressions

- no common denominator needed.

When adding/subtracting Rational Functions

once you have a common denominator

↓

combine to one fraction

but only after you factor everything first!

(b) $\frac{3}{2x+4} - \frac{x}{x^2+4x+4}$ → $(2x+4)(x^2+4x+4)$

Factoring can take up a lot of space depending on the problem. I don't need to see this work so show factoring work on scratch paper on the test.

Two types of scratch paper.

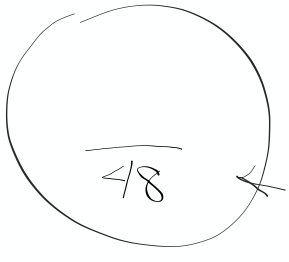
just scratch.... but must turn it in. Name not necessary.

However, if you you run out of room on a problem or you don't want to erase then add your name and staple it to your test.

Write a note ..... "see scratch paper"

Ch. 3 HOMEWORK Packet

includes up to ~~today's~~ textbook assignment



Review for Test

TURN IN with packet

13 ... 129, 128, 131, 133

Extra Practice Review Sheet with answers with Rational Expressions

Review for Test

do this now then assemble your Packet

TURN IN with packet

13 ... 129, 128, 131, 133

Extra Practice Review Sheet with answers with Rational Expressions

(a) $n(2n+1)(2n-1)$ $4n^2-n$

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

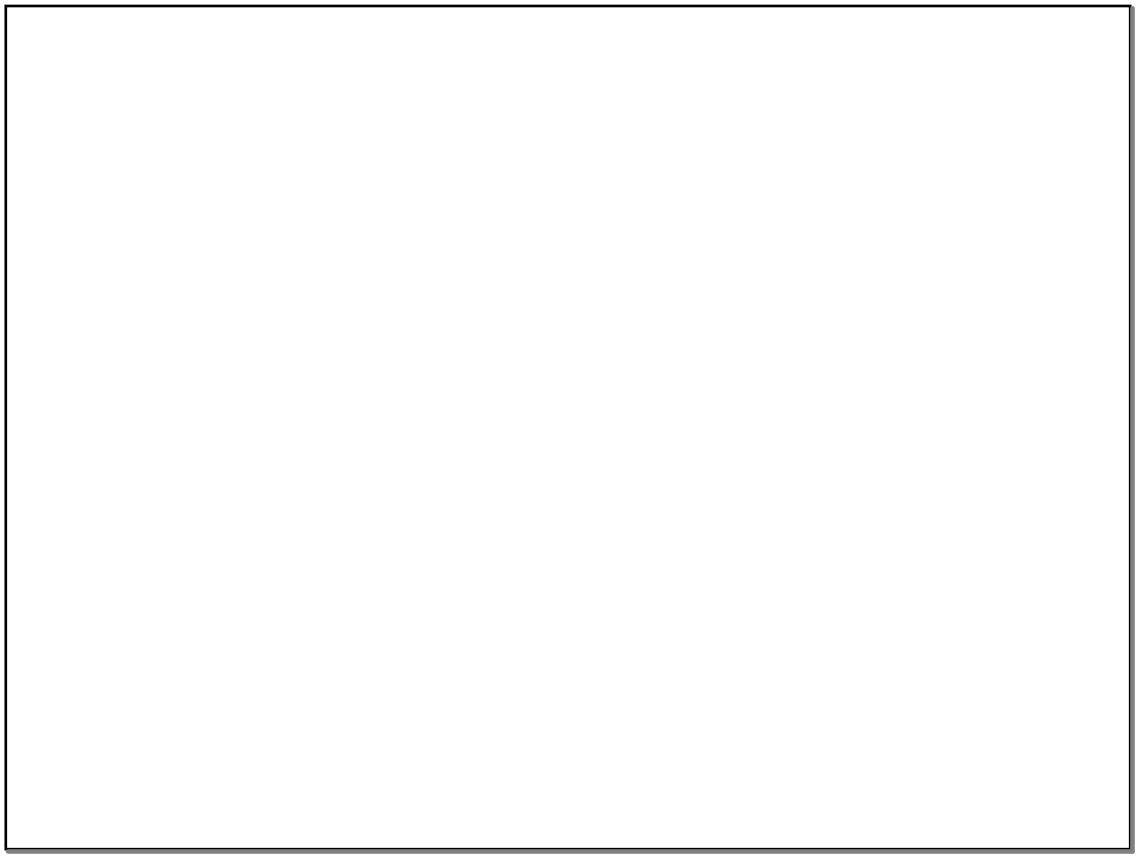
(b) $(2x-1)^2$ $\qquad 4x^2-1$

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

NO

(c) $10x^2-55x-105$ $\qquad 5(2x+3)(x-7)$

(d) $\left(\frac{4x^{12}}{-2x^{8}}\right)^{3}$ $-8x^{12}$

(e) $2x-3y=6$ $y=\frac{2}{3}x+6$

(f) $\sqrt{108}$ $6\sqrt{3}$