

$$\frac{1}{10} + \frac{5}{14}$$

$$10 = 2 \cdot 5$$

$$14 = 2 \cdot 7$$

$$\text{LCD} =$$

$$2 \cdot 5 \cdot 7$$

$$2 \begin{array}{l} \downarrow \\ 10 \\ \downarrow \\ 5 \end{array}$$

$$2 \begin{array}{l} \downarrow \\ 14 \\ \downarrow \\ 7 \end{array}$$

$$\frac{7}{7} \left(\frac{1}{2 \cdot 5} \right) + \left(\frac{5}{2 \cdot 7} \right) \left(\frac{5}{5} \right)$$

$$= \frac{7+5}{\text{LCD}} = \frac{12}{\text{LCD}} = \frac{12}{70} = \boxed{\frac{6}{35}}$$

$$\frac{3}{x+6} + \frac{2x}{x^2+3x-18}$$

$$\begin{array}{l} x+6 \\ x^2-x-7 = \end{array}$$

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

$$(x+6)(x-3) = x^2 + 3x - 18$$

$$= \frac{3x-9 + 2x}{\text{LCD}}$$

$$x+6$$

$$x+6$$

$$x-3$$

$$\boxed{\text{LCD} = (x+6)(x-3)}$$

$$= \boxed{\frac{5x-9}{\text{LCD}}} = \frac{5x-9}{(x+6)(x-3)}$$

§ 1.1 # 85 in book = #19 on MyLab

Solve $(x-4)^2 = x^2 - 8$

$$x^2 - 2(x)(4) + 4^2 = x^2 - 8$$

$$x^2 - 8x + 16 = x^2 - 8$$

Chomp. lame
cancel

$$(a-b)^2 = a^2 - 2ab + b^2$$

Memorize this special product

$$-8x + 16 = -8$$

$$-16 = -16$$

$$-8x = -24$$

"missing" step

$$x = \frac{-24}{-8} = \boxed{3 = x}$$

$$\frac{-8x}{-8} = \frac{-24}{-8}$$

want you to learn to leave out this step

2

$$\frac{-8x}{-8} > \frac{-24}{-8}$$

$$-8x < -24$$

$$x > \frac{-24}{-8} = 3$$

$$\frac{-8x}{-8} > \frac{-24}{-8}$$

Need to see

Need to see

I will be quieter, as we go
on.

Questions? Come and ask!
Don't be shy!

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MAT 121-G16 College Algebra, Fall, 2016 Semester Schedule

Week	Where We're at	Monday's Date
1	MyLab Startup (Optional) 1.1 - 1.3	8/22
2	1.3 - 1.5	8/29
3	1.6, 1.7 Writing Project #1 is due Friday	9/5
4	Exam 1, covering Chapter 1, is Wednesday, Start Chapter 2. 2.1, 2.2	9/12
5	2.3, 2.4, 2.5	9/19
6	2.6, 2.7 Writing Project #2 is due Friday	9/26
7	Exam 2 is Wednesday, 3.1, 3.2	10/3
8	3.2 - 3.4	10/10
9	3.5, Writing Project #3 is due Friday	10/17
10	Exam 3 is Wednesday, 4.1, 4.2	10/24
11	4.3, 4.4	10/31
12	Exam 4 is Wednesday, 5.1, 5.2	11/7
13	5.2, 5.3, 5.5, 8.1	11/14
14	8.2, 8.3, 4.4 II (The Annuity Question integrates Chapters 4 & 8)	11/21
15	8.4, 8.5	11/28
16	Final Exam, Wednesday, December 7th, 1:10 - 3:00 p.m.	12/5

If you want + it graded before the test.

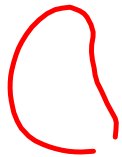
otherwise, writing projects are due when homework is: after test.

↑ $\frac{7x}{8} - 1 = 4 - \frac{15}{16}$

LCD = LCM of denominators

$\frac{7x}{8} = 5 - \frac{15}{16}$

= 16
2, 3, 5, 7, 11, 13, 17, 19



$\frac{14x}{16} = \frac{80 - 15}{16} = \frac{65}{16}$

2 | 16
2 | 8
2 | 4
2

2 | 8
2 | 4
2

$x = \left(\frac{65}{16}\right) \left(\frac{16}{14}\right) = \frac{65}{14}$

$\left(\frac{2}{2}\right) \left(\frac{7x}{2 \cdot 2 \cdot 2}\right) - \frac{1}{1} \cdot \frac{2 \cdot 2 \cdot 2 \cdot 2}{2 \cdot 2 \cdot 2 \cdot 2} = \frac{4}{1} \cdot \frac{2 \cdot 2 \cdot 2 \cdot 2}{2 \cdot 2 \cdot 2 \cdot 2} - \frac{15}{(2 \cdot 2 \cdot 2 \cdot 2)}$

$\frac{14x - 16}{LCD} = \frac{64 - 15}{LCD}$

$\frac{3}{4} = \frac{x}{4} \Rightarrow$

$14x - 16 = 64 - 15 = 49$

$3 = x$

$14x - 16 = 49$

$+16 = +16$

$\frac{14x - 16}{+16} = \frac{49}{+16}$
 $14x = 33 \rightarrow 65$
 $x = \frac{33}{14} \rightarrow 65$