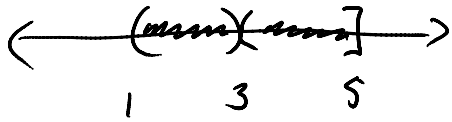
Section 2.2: cont'd

Thursday, October 03, 2013
9:32 AM

Comments on Assign 1:

4f $\quad y(x+y) = xy + y^2$

7e $\quad (1, 3) \cup (3, 5]$



8e $\quad -(6 \cdot 2^3)^4 + (-18) \div (-0.9)$

$-(-2)^4 + (-18) \div \left(-\frac{9}{10}\right)$

$-(16) + (-\cancel{18}^{2}) \times \left(\frac{-10}{\cancel{9}}\right)$

$-16 + 20$

4

8 g) $\quad (0.3 + 0.4)^2 - 0.3^2 - 0.4^2$

$(0.7)^2 - 0.3^2 - 0.4^2$

$0.49 - 0.09 - 0.16$

0.24

$(0.3)^2 = \left(\frac{3}{10}\right)^2 = \frac{3}{10} \cdot \frac{3}{10} = \frac{9}{100} = 0.09$

$= (0.3)(0.3) = 0.09$

8 f $\quad -3^2 = -1 \cdot 3 \cdot 3$

$(-3)^2$

$-0.3^2 = -1(0.3)^2 = -0.09$

$-3^2 = -(3)^2$

10 d) $\quad \frac{4x-8}{-2} - \frac{4x-8}{2}$

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

$-2x + 4 - 2x + 4$

$-4x + 8$

solve for m:

$$ma + 5 = 3a - m$$

$$ma + m = 3a - 5$$

$$m(a+1) = 3a - 5$$

$$m = \frac{3a-5}{a+1}$$

solve for y: LCD: xyz

$$xyz\left(\frac{1}{x} + \frac{2}{y}\right) = \left(\frac{3}{z}\right)xyz$$

$$yz + 2xz = 3xy$$

bring all y terms to one side

$$2xz = 3xy - yz$$

$$2xz = y(3x - z)$$

factor out y

$$\frac{2xz}{3x - z} = y$$

solve for y and <u>then</u> (and only then) evaluate for $z = -2$

$$12yz\left(\frac{1}{3y} + \frac{1}{4z}\right) = \left(\frac{1}{2}\right)12yz$$

$$4z + 3y = 6yz$$

$$4z = 6yz - 3y$$

$$4z = y(6z - 3)$$

$$\frac{4z}{6z-3} = y$$

$$\boxed{y = \frac{4z}{6z-3}} \quad \text{or} \quad y = \frac{-4z}{3-6z}$$

$$y = \frac{-8}{-12-3} = \frac{-8}{-15} = \frac{8}{15}$$