

Circle One:

Name: _____

9:55-10:45 (2)

11:00-11:50 (3)

Math101, Sections 2 and 3, Spring 2008

Quiz #7: 04-14-08.

1.

a. Equation or Expression?

b. Perform the subtraction.

$$\frac{6}{7x} - \frac{4}{x}.$$

Solution: This is an *expression* because there is no equals sign. When dealing with a problem like this, we are forced to leave a denominator because we have no means to “clear the denominators”.

$$\frac{6}{7x} - \frac{4}{x} = \frac{6}{7x} - \frac{28}{7x} = \frac{6 - 28}{7x} = \frac{-22}{7x}.$$

2.

a. Equation or Expression?

b. Find x .

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

Solution: First, this is an *equation* because there is an equals sign present. This means we can “clear the denominators“ by multiplying both sides of the equation by an appropriate choice. One nice choice to use is multiply both sides by the $LCD = x(x+1)$. This gives

$$(x+1) - 2x = 0,$$

which yields $x = 1$.

3. Solve for G .

$$F = \frac{G \cdot M \cdot m}{r^2}$$

Solution: Multiply both sides by $\frac{r^2}{M \cdot m}$. This gives $G = \frac{F \cdot r^2}{M \cdot m}$.