Pre-Algebra Midterm Additions

1. Simplify the following expressions:

1. $\frac{3(5+2)}{4+(-4)}$ b. $\frac{4+(-4)}{3(5+2)}$ c. $\frac{3\left(2\right)-6}{5(1-2)}$ d. $\frac{4(2-3)}{5\left(2\right)-10}$

2. Identify the following as Prime or composite numbers

a. 31 \_\_\_\_\_\_\_ b. 121 \_\_\_\_\_\_\_ c. 51 \_\_\_\_\_\_\_ d. 81 \_\_\_\_\_\_\_\_\_ e. 231 \_\_\_\_\_\_\_\_

3. Factor the composite numbers from #2a, b, c, d, & e above

 i. \_\_\_\_\_\_\_\_\_\_\_\_\_ ii . \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ iii. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ iv. \_\_\_\_\_\_\_\_\_\_\_

4. Identify the components of this expression by filling in the blank: $7^{2}+6x+y^{3}-4^{5}$

1. \_\_\_\_\_ is a base in the equation b. \_\_\_\_\_ is a coefficient c. \_\_\_\_\_ is squared

d. \_\_\_\_\_ is an exponent e. \_\_\_\_\_ is a variable in the equation f. \_\_\_\_\_ is cubed

5. Convert the following to mixed fractions

 a. $\frac{25 }{3} = $\_\_\_\_\_ b. $\frac{46}{7} =$ \_\_\_\_\_ c. $\frac{159}{14}$ = \_\_\_\_\_

6. Convert the following to improper fractions

 a. $5\frac{2}{3 } = $\_\_\_\_\_ b. $4\frac{6}{7} =$ \_\_\_\_\_ c. $10\frac{9}{4} = $ \_\_\_\_\_

7. Check which are successfully divisible (yes/no)

 a. divisible by 2? 123,456 \_\_\_\_\_ b. divisible by 3 ? 123,456 \_\_\_\_\_

 371115 \_\_\_\_\_ 371115 \_\_\_\_\_

 654321 \_\_\_\_ 654321 \_\_\_\_\_

 c. divisible by 4? 123,456 \_\_\_\_\_ d. divisible by 9 ? 123,456 \_\_\_\_\_

 371115 \_\_\_\_\_ 371115 \_\_\_\_

 654321 \_\_\_\_\_ 654321 \_\_\_\_

e. divisible by 5? 123,456 \_\_\_\_\_ f. divisible by 6 ? 123,456\_\_\_\_\_

 371115 \_\_\_\_\_ 371115 \_\_\_\_\_

 654321 \_\_\_\_\_ 654,321 \_\_\_\_

*Pre – Algebra extra midterm Answers:*

1a) undefined 6a) $\frac{17}{3}$

 b) 0 b) $\frac{34}{7}$

 c) 0 c) $\frac{49}{4}$

 d) undefined

2a) prime 7a) yes

 b) composite no

 c) composite no

 d) composite

 e) composite 7b) yes

 yes

3i) 121 = 11 x 11 = 112  yes

 ii) 81 = 3 x 3 x 3 x3 = 34

 iii) 231 = 3 x 7 x 11 7c) yes

 iv) 51 = 3 x 17 no

 no

4a) bases: 7, y & 4

 b) coefficients: 6 & 1 7d) no

 c) 7 yes

d) 2, 3, & 5 no

e) x or y

f) y 7e) no

 yes

5a) 8$\frac{1}{3}$ no

 b) 6 $\frac{4}{7}$ 7f) yes

 c) 11$\frac{5}{14}$ no

 no