Math 100 Quiz #4 Name:

1. Write in standard form: 5 million, 4 thousand, eight hundred

$5,004,800$

2. Divide: $0.12 \div 0.8$

$$0.8\overline{)0.120} \quad 0.15, \quad 8\downarrow, \quad 40$$

3. $5^6 \times 2^6 =$ Leave your answer in exponential notation.

$(5\times2)^6 = 10^6$

4. $5^6 \div 5^6 =$ Simplify your answer as much as possible.

$5^{(6-6)} = 5^0 = 1 \qquad \left(\frac{5}{5}\right)^6 = 1^6 = 1 \qquad \frac{5^6}{5^6} = 1$

5. $9 - 3(3 - 10) =$ $9 - 3(-7) = 9 + (-3)(-7) = 9 + 21 = 30$

6. Simplify to lowest terms: $\frac{60}{96} = \frac{2\cdot2\cdot3\cdot5}{2\cdot2\cdot2\cdot2\cdot2\cdot3} = \frac{5}{2\cdot2\cdot2} = \frac{5}{8}$ or $\frac{60\div12}{96\div12} = \frac{5}{8}$

60 → 2, 30 → 2, 15 → 3, 5

96 → 2, 48 → 2, 24 → 2, 12 → 2, 6 → 2, 3

$GCF = 2^2\cdot3 = 12$

7. Find the least common denominator: $\frac{9}{10}, \frac{5}{18}, \frac{19}{20}$

LCM of 10 ($2\cdot5$), 18 ($2\cdot3^2$), 20 ($2^2\cdot5$)

$LCM = 2^2\cdot3^2\cdot5 = 4\cdot9\cdot5 = 180$

8. Find the equivalent fraction: $\frac{?}{8} = \frac{8}{64}$

$\frac{1}{8} \leftarrow \frac{2\div8}{8\div8} = \frac{8}{64\div8}$ or $\frac{x}{8} = \frac{8}{64} \rightarrow 64x = 64 \rightarrow x = \frac{64}{64} = 1$

so $\frac{1}{8} = \frac{8}{64}$

or $\frac{?\times8}{8\times8} = \frac{8}{64} \rightarrow \frac{1}{8}$