**Number Systems Quiz** /15

Justify each answer by showing your work. You are not allowed to use a calculator.

1.(2 points) Write the prime factorization of 4116.

2.(2 points) Determine the greatest common factor of 84, 210, and 336.

3.(2 points) Determine the least common multiple of 48, 72, and 108.

4.(2 points) One neighbour cuts his lawn every 8 days. Another neighbour cuts her lawn every 10 days. Suppose both neighbours cut their lawns today. How many days will pass before both neighbours cut their lawns on the same day again?

5.(2 points) There are 16 male students and 20 female students in a Grade 10 math class. The teacher wants to divide the class into groups with the same number of males and the same number of females in each group. What is the greatest number of groups the teacher can make?

 6. (2 points) Write the number $0.12\overbar{3}$ as a fraction in simplified form.

 7. (3 points) Put the following numbers in the appropriate box. Some numbers may be used more than once.

 $5$ $-4$ $\frac{16}{3}$ $π$ $0$ $\sqrt{7}$ $\sqrt{9}$ $\frac{3}{0}$ $0.\overbar{54}$ $9.2$ $\sqrt{-4}$ $10\frac{1}{4}$

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Natural | Whole | Integers | Rational | Irrational | Real | None |
|  |  |  |  |  |  |  |