## Philadelphia University

## Department of Basic Sciences

1. Evaluate the continued fraction $[3,6, \overline{1,4}]$. Write your answer in the form $\frac{P+\sqrt{n}}{Q}$.
2. Represent $\sqrt{7}$ using a periodic infinite continued fraction.
3. Use Pollard rho method to factor the number 6697.
4. The following table is taken from a Qudratic Sieve method with $n=799$.

|  | $29^{2}$ | $31^{2}$ | $40^{2}$ | $58^{2}$ | $75^{2}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 5 |  |  |  |  |  |
| 7 |  |  |  |  |  |

Complete the algorithm.
-Amin Witno

