# MATHEMATICS ENRICHMENT CLUB.
## Solution Sheet 7, June 9, 2015[1]

1. If we   x *x*

Now the integral solutions to $f(x) = 2016$ are the integral solutions to $g(x) = 1$, but there is no integral solution to $g(x) = 1$, because in the expression $g(x) = c(x - a_1)(x - a_2)(x - a_3)(x - a_4)(x - a_5)h(x)$, each $(x - a_i)$, $i = 1$

of $P(x)$ by

$$a_{99} = \sum_{i}^{100} r_i$$

$$a_{98} = \sum_{i<j} r_i r_j$$

$$a_{97} = \sum_{i<j<k} r_i r_j r_k$$

$$\vdots \qquad \vdots$$

$$1 =$$

Hence $14n + 11$ is divisible by 5 and 3 alternately, and can never be prime.