Ghosh's Ordinary Diophantine System

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Abstract

In this paper, I describe Ghosh's Ordinary Diophantine System.
The paper ends with "The End"

Introduction

Ghosh's Ordinary Diophantine System is useful in many fields of knowledge including economics, finance and political science. In this paper, I describe Ghosh's Ordinary Diophantine System.

Ghosh's Ordinary Diophantine System

My Diophantine system of degree d denoted **GODS(d)** is

$$P = \sum_{i=1}^{d} p_i$$

$$V = \sum_{i=1}^{d} v_i$$

$$\frac{v}{p} = \sum_{i=1}^{d} \frac{v_i}{p_i}$$

$$\frac{PV}{n} = \sum_{i=1}^{d} p_i v_i$$

where

$$n \geq 1$$

$$\frac{v}{p} > 1$$

$$\frac{V}{P} > 1$$

2 solutions to GODS(1)

1. $P = 1, V = 4, n = 1, v = 4, p = 1, p_1 = 1, v_1 = 4$

2. $P = 1, V = 5, n = 1, v = 70, p = 14, p_1 = 1, v_1 = 5$

1 solution to GODS(3)

1. $n = 3, P = 3, V = 4, v = 4, p = 1, p_1 = 1, p_2 = 1, p_3 = 1, v_1 = 1, v_2 = 1, v_3 = 2$

1 solution to GODS(4)

1. $n = 4, P = 4, V = 7, p = 1, v = 7, p_1 = 1, p_2 = 1, p_3 = 1, p_4 = 1, v_1 = 1, v_2 = 1, v_3 = 1, v_4 = 4$

1 solution to GODS(5)

1. $n = 5, P = 5, V = 8, p = 1, v = 8, p_1 = 1, p_2 = 1, p_3 = 1, p_4 = 1, p_5 = 1, v_1 = 1, v_2 = 1, v_3 = 1, v_4 = 1, v_5 = 4$

The End