Derivation Of Results Centered On Range Of Appearance Of Two Disparate Sequences

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Abstract- In this paper, the range of appearance of totality of two familiar sequences involving Icosagonal number and square pyramidal number so-called Icospyramidal result number and addition of the range of appearance of the above cited sequences separately are assessed. Furthermore, some results centered on range of appearance of those numbers are perceived and confirmed by separate python programs.

Index Terms- Polygonal number, divisibility, $p$ – adic range, Range of appearance.

I. INTRODUCTION

Polygonal number is a number denoted as dots or pebbles organized in the form of a systematic polygon. It is a two dimensional figurate number. An Icosagonal number is of the form $9r^2 - 8r$ and it is a twenty sided polygon. Pyramid number or square pyramidal number $\frac{(j+1)(2j+1)}{6}$ shows three dimensional figurate number”[1, 4, 5]. In [2] deals the modulus condition used in Fibonacci number. In [3] author shows the order of Fibonacci and Lucas number. [6-10] display the order of appearance in different forms like a product, upper bound and Diophantine equation involving of Fibonacci number. In this communication, the range of appearance of sum of two peculiar sequences concerning Icosagonal number and square pyramidal number termed as Icospyramidal number and sum of the range of appearance of the already quoted sequences distinctly are evaluated. Also, few results based on range of appearance of those numbers are presented and verified by python programs.

II. RANGE OF APPEARANCE IN ICOspyRAMIIDAL NUMBER

The $r^{th}$ term of sequence of Icosagonal number is taken as

$s_r = 9r^2 - 8r$.

The $r^{th}$ term of sequence of Square pyramidal number is consider as

$m_r = \frac{r(r+1)(2r+1)}{6}$

The $r^{th}$ term of the novel sequence named as Icospyramidal sequence received by adding like terms in both of the above mentioned sequences is denoted by

$f_r = s_r + m_r = \frac{2r^3 + 57r^2 - 47r}{6}$

Then, the sequence of Icospyramidal number is given by $2, 25, 71, 142, 240, 367, 525, 716, 942, 1205, 1507, ...$

“The range of appearance of a positive integer $f_r$ in the sequence of Icospyramidal number is denoted by $u(f_r)$ and is defined by the least positive integer $c$ such that $f_r|c$ ”[10].

Few range of appearance of Icospyramidal number are enlisted in table 2.1.
Table 2.1

<table>
<thead>
<tr>
<th>( r )</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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</tr>
</thead>
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<td>1</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>16</td>
<td>5</td>
<td>11</td>
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</tr>
<tr>
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<td>14</td>
<td>15</td>
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<tr>
<td>( I(r) )</td>
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<td>21</td>
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<td>5</td>
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<td>16</td>
<td>19</td>
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<tr>
<td>( I(r) )</td>
<td>12</td>
<td>57</td>
<td>52</td>
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<td>41</td>
<td>77</td>
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<td>77</td>
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<tr>
<td>( I(r) )</td>
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<td>5</td>
</tr>
<tr>
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<td>72</td>
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<tr>
<td>( I(r) )</td>
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<td>70</td>
<td>101</td>
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<td>( I(r) )</td>
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<td>94</td>
<td>95</td>
<td>96</td>
</tr>
<tr>
<td>( I(r) )</td>
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<td>13</td>
<td>167</td>
<td>165</td>
<td>89</td>
<td>77</td>
<td>91</td>
<td>69</td>
<td>124</td>
<td>89</td>
<td>57</td>
<td>293</td>
</tr>
<tr>
<td>( r )</td>
<td>97</td>
<td>98</td>
<td>99</td>
<td>100</td>
<td>100</td>
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<td>100</td>
</tr>
<tr>
<td>( I(r) )</td>
<td>57</td>
<td>54</td>
<td>77</td>
<td>32</td>
<td>32</td>
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<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
</tbody>
</table>

The range of appearance in Icospyramidal number can be estimated with the assistance of the following Python program 1

Program 1

```python
i = int(input("Enter r value:"))
t = []
for k in range(1, i + 1):
a = (9 * (k ** 2) - 8 * k)
b = (k * (k + 1) * ((2 * k) + 1)) / 6
a = a + b
t.append(int(a))
print(t)
r = int(input("Enter r value:
arr = list(range(1, r + 1))
print("fr:", arr)
z = []
for j in range(r):
v = []
for k in range(i):
if (t[k] % arr[j]) == 0:
v.append(k + 1)
if not v:
```

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Let \( r \) be a positive integer of the form \( f_r = P^t \) where \( P \) is a prime number

i. If \( P = 2 \) then \( I(2^t) \leq \frac{5}{3} (2^t) \) for \( t \geq 1 \).

ii. If \( P = 3 \) then \( I(3^t) \leq \frac{5}{2} (3^t) \) for \( t \geq 1 \).

iii. If \( P = 5 \) then \( I(5^t) \leq (5^t) \) for \( t \geq 1 \).

iv. If \( P > 5 \) then \( I(P^t) \leq \left( 3P - \frac{2}{P} \right) P^{t-1} \) for \( t \geq 1 \).

This result can be verified by the Python program 2.

**Program 2**

```python
i = int(input("Enter r value: "))
m = []
for k in range(1, i + 1):
    a = (9 * (k ** 2) - 8 * k)
    b = (k * (k + 1) * ((2 * k) + 1)) / 6
    a = a + b
    m.append(int(a))
print(m)
t = int(input("Enter t value: "))
t_arr = []
for j in range(1, t + 1):
    t_arr.append(2 ** j)
print("fr:", t_arr)
arr = []
for j in range(t):
    v = []
    for l in range(j):
        if (m[l] % t_arr[j]) == 0:
            v.append(l + 1)
    if not v:
        z.append("* ")
    else:
        z.append(min(v))
print("i(fr):", z)
```

**Result 2.2**

Let \( x \) be any integer and \( d_\pi(x), \wedge(x) \) are \( p \)-adic and prime conjunction function where \( \subseteq_x = \begin{cases} 
0 & \text{if } x \nmid 5 \\
1 & \text{if } x \mid 5 
\end{cases} \)

\[ 
\begin{align*}
\text{i. If } & d_\pi(x) = 1, \text{then } I(f_r) \leq \begin{cases} 
\frac{5}{2} x, & \wedge(x) = 2 \text{ and } x \nmid 5 \\
2x, & \wedge(x) = 2 \text{ and } x \mid 5 \\
4 \left( \frac{5}{2} \right) \wedge(x) - \frac{5}{2} x, & \wedge(x) > 2
\end{cases} \\
\text{ii. If } & d_\pi(x) = 2, \text{then } I(f_r) \leq \begin{cases} 
\frac{7}{2} x, & \wedge(x) = 2 \text{ and } x \nmid 5 \\
2x, & \wedge(x) = 2 \text{ and } x \mid 5 \\
3 \left( \frac{7}{2} \right) \wedge(x) - \frac{7}{2} x, & \wedge(x) > 2
\end{cases}
\end{align*} 
\]
iii. If \( d_p(x) = 3 \), then \( I(f_r) \leq \begin{cases} 
\frac{5}{2} x, & \text{if } \wedge(x) = 2 \text{ and } x \nmid 5 \\
3x, & \text{if } \wedge(x) = 2 \text{ and } x|5 \\
5\left(\frac{1}{2}\right)^{\wedge(x)-x}x^2, & \text{if } \wedge(x) > 2 
\end{cases} \)

This result can be substantiated by the Python program 3.

Program 3

```python
i = int(input("Enter r value: "))
m = [
for k in range(1, i + 1):
a = (9 * (k ** 2) - 8 * k)
b = (k * (k + 1) * ((2 * k) + 1))/6
a = a + b
m.append(int(a))
print(m)
p = int(input("Enter p value: "))
n = 2 * p
print("fr:", n)
z = [
for j in range(i):
  if (m[j]%n) == 0:
    v.append(j + 1)
if not v:
  z.append(" ")
else:
  z.append(min(v))
print("i(fr):", z)
```

III. SUM OF RANGE OF APPEARANCE OF ICOSAGONAL AND SQUARE PYRAMIDAL NUMBERS

Let \( u(s_r) \) and \( u(m_r) \) be the range of appearance of Icosagonal and square pyramidal number respectively then \( u(t_r) = u(s_r) + u(m_r) \) is the sum of range of appearance in Icosagonal and square pyramidal number.

Some numerical values of range of appearance of Icosagonal numbers are listed in table 3.1.

<table>
<thead>
<tr>
<th>( s_r )</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>( I(s_r) )</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>2</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>( s_r )</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>( I(s_r) )</td>
<td>11</td>
<td>4</td>
<td>12</td>
<td>4</td>
<td>16</td>
<td>18</td>
<td>3</td>
<td>2</td>
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<td>6</td>
<td>12</td>
</tr>
<tr>
<td>( s_r )</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>21</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>34</td>
<td>35</td>
<td>36</td>
</tr>
<tr>
<td>( I(s_r) )</td>
<td>12</td>
<td>24</td>
<td>27</td>
<td>4</td>
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<tr>
<td>( I(s_r) )</td>
<td>5</td>
<td>22</td>
<td>24</td>
<td>12</td>
<td>10</td>
<td>18</td>
<td>27</td>
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<td>12</td>
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</tr>
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<tr>
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<td>24</td>
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<td>4</td>
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<td>14</td>
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</tr>
<tr>
<td>( I(s_r) )</td>
<td>28</td>
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</table>
Few range of appearance of square pyramidal numbers are scheduled in table 3.2.

<table>
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<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
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<td>84</td>
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<td>l(s_r)</td>
<td>9</td>
<td>42</td>
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<td></td>
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<td></td>
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</tr>
</tbody>
</table>

The succeeding Python program 4 ensured the values of u(s_r) and u(m_r).

**Program 4**

```python
i = int(input("Enter r value:"))
t = []
p = []
for k in range(1, i + 1):
    a = (9 * (k ** 2) - 8 * k)
    t.append(int(a))
print(t)
j = int(input("Enter r value:"))
for k in range(1, j + 1):
    b = (k * (k + 1) * ((2 * k) + 1)) / 6
    p.append(int(b))
```

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```python
print(p)
r = int(input("Enter sr value:"))
arr = list(range(1, r + 1))
print("sr:" ,arr)
z = []
for y in range(r):
    v = []
    for k in range(i):
        if t[k]%arr[y] == 0:
            v.append(k + 1)
        if not v:
            z.append("*")
        else:
            z.append(min(v))
print("i(sr):",z)
m = int(input("Enter mr value:"))
m_arr = list(range(1, m + 1))
print("mr:" ,m_arr)
z = []
for y in range(m):
    v = []
    for k in range(i):
        if p[k]%m_arr[y] == 0:
            v.append(k + 1)
        if not v:
            z.append("*")
        else:
            z.append(min(v))
print("i(mr):",z)
```

**Result 3.1**

Let \( x \) be a positive integer of the form \( x = P^t \), where \( P \) is a prime number

i. If \( P = 2 \) then \( I(2^t) \leq \frac{5}{2}(2^t) \) for \( t \geq 1 \).

ii. If \( P = 3 \) then \( I(3^t) \leq \frac{7}{3}(3^t) \) for \( t \geq 1 \).

iii. If \( P = 5 \) then \( I(5^t) \leq \frac{5}{3}(5^t) \) for \( t \geq 1 \).

iv. If \( P > 5 \) then \( I(P^t) \leq 5 \left( P - \frac{6}{P} \right) P^{t-1} \), for \( t \geq 1 \).

This result can be verified by Python program 5

**Program 5**

```python
i = int(input("Enter r value:"))
m = []
p = []
for k in range(1,i + 1):
    a = (9 * (k ** 2) - 8 * k)
    m.append(int(a))
print(m)
j = int(input("Enter r value:"))
for k in range(1,j + 1):
    b = (k * (k + 1) * ((2 * k) + 1)) / 6
    p.append(int(b))
```

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print(p)
t = int(input("Enter t value: "))
t_arr = []
for u in range(1, t + 1):
t_arr.append(2 ** u)
print("sr: ", t_arr)
z = []
for e in range(t):
v = []
for l in range(i):
    if (m[l] % t_arr[e]) == 0:
v.append(l + 1)
if not v:
z.append("*")
else:
z.append(min(v))
print("(sr): ", z)
print("mr: ", t_arr)
x = []
for e in range(t):
v = []
for l in range(j):
    if (p[l] % t_arr[e]) == 0:
v.append(l + 1)
if not v:
x.append("*")
else:
x.append(min(v))
print("(mr): ", x)

Result 3.2

Let \( x \) be any integer and \( d_p(x) \), \( \wedge (x) \) are \( p \)-adic and omega function where \( \mathbb{S}_x = \begin{cases} 0 & \text{if } x \equiv 5 \pmod{5} \\
1 & \text{if } x \not\equiv 5 \pmod{5} \end{cases} \)

i. If \( d_p(x) = 1 \), then \( I(t_r) \leq \begin{cases} \frac{7}{2} x, & \text{if } \wedge (x) = 2 \text{ and } x \equiv 5 \\
3x, & \text{if } \wedge (x) = 2 \text{ and } x \not\equiv 5 \pmod{5} \\
4^{\mathbb{S}_x(x)-\mathbb{S}_x x - 2} x, & \text{if } \wedge (x) > 2 \end{cases} \)

ii. If \( d_p(x) = 2 \), then \( I(t_r) \leq \begin{cases} \frac{9}{2} x, & \text{if } \wedge (x) = 2 \text{ and } x \equiv 5 \\
3x, & \text{if } \wedge (x) = 2 \text{ and } x \not\equiv 5 \pmod{5} \\
4^{\mathbb{S}_x(x)-\mathbb{S}_x x - 2} x, & \text{if } \wedge (x) > 2 \end{cases} \)

iii. If \( d_p(x) = 3 \), then \( I(t_r) \leq \begin{cases} \frac{9}{2} x, & \text{if } \wedge (x) = 2 \text{ and } x \equiv 5 \\
3x, & \text{if } \wedge (x) = 2 \text{ and } x \not\equiv 5 \pmod{5} \\
4^{\mathbb{S}_x(x)-\mathbb{S}_x x - 2} x, & \text{if } \wedge (x) > 2 \end{cases} \)

This result can be confirmed by the Python program 6.

Program 6

\( i = \text{int}(")\text{input("Enter r value: ")}) \)

\( m = [] \)
\( x = [] \)

for \( k \) in range(1, \( i + 1 \)):
    \( a = (9 \cdot (k \cdot \cdot 2) - 8 \cdot k) \)
    \( m.\operatorname{append}(\text{int}(a)) \)
print(\( m \))

\( j = \text{int}(\text{input("Enter r value:"))} \)

for \( k \) in range(1, \( j + 1 \)):
    \( b = \frac{(k \cdot (k + 1) \cdot ((2 \cdot k) + 1))}{6} \)
    \( x.\operatorname{append}(\text{int}(b)) \)
print(\( x \))

\( p = \text{int}(\text{input("Enter p value:"))} \)

\( n = 2 \cdot p \)

print("sr: ", \( n \))

\( z = [] \)

\( v = [] \)

for \( e \) in range(\( i \)):
    if \( (m[e] \cdot n) == 0 \):
        \( v.\operatorname{append}(e + 1) \)
    if not \( v \):
        \( z.\operatorname{append}(" *") \)
    else:
        \( z.\operatorname{append}(-\text{min}(v)) \)
print("i(sr): ", \( z \))

print("mr: ", \( n \))

\( q = [] \)

\( y = [] \)

for \( e \) in range(\( j \)):
    if \( (x[e] \cdot n) == 0 \):
        \( y.\operatorname{append}(e + 1) \)
    if not \( y \):
        \( q.\operatorname{append}(" *") \)
    else:
        \( q.\operatorname{append}(-\text{min}(y)) \)
print("i(mr): ", \( q \))

IV. Conclusion

In this article, few results using the concept of range of appearance of number patterns are evaluated. All the derived results are verified by various python programs. In a similar way, one can scrutinize numerous results by modifying the definition of range of appearance of different kinds of numbers.
REFERENCES

[10] Eva Trojovs, “On the Diophantine Equation $z(n) = \left( \frac{2}{\phi} - \frac{1}{2} \right)^n$ involving the order of appearance in the Fibonacci Sequence”, Mathematics 2020,1-8.

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