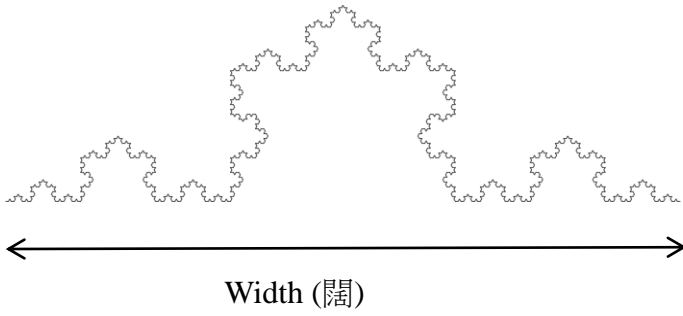
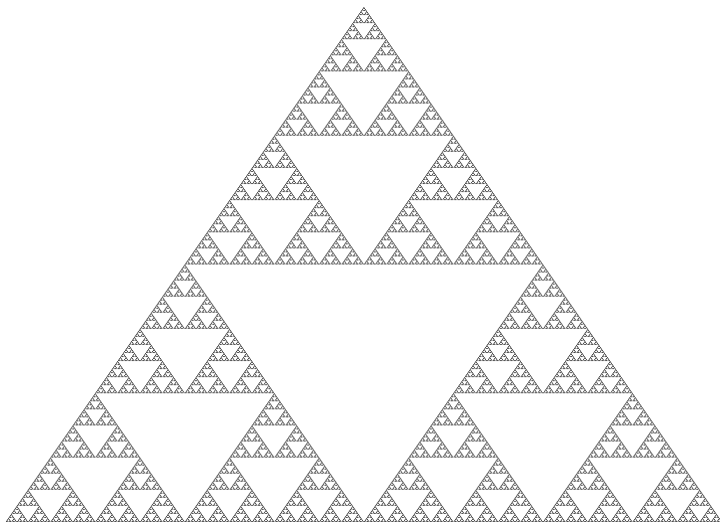


2014/15 第十屆香港小學數學創意解難比賽
(決賽暨粵港澳交流邀請賽 - 數學辯論/ 解難實驗)

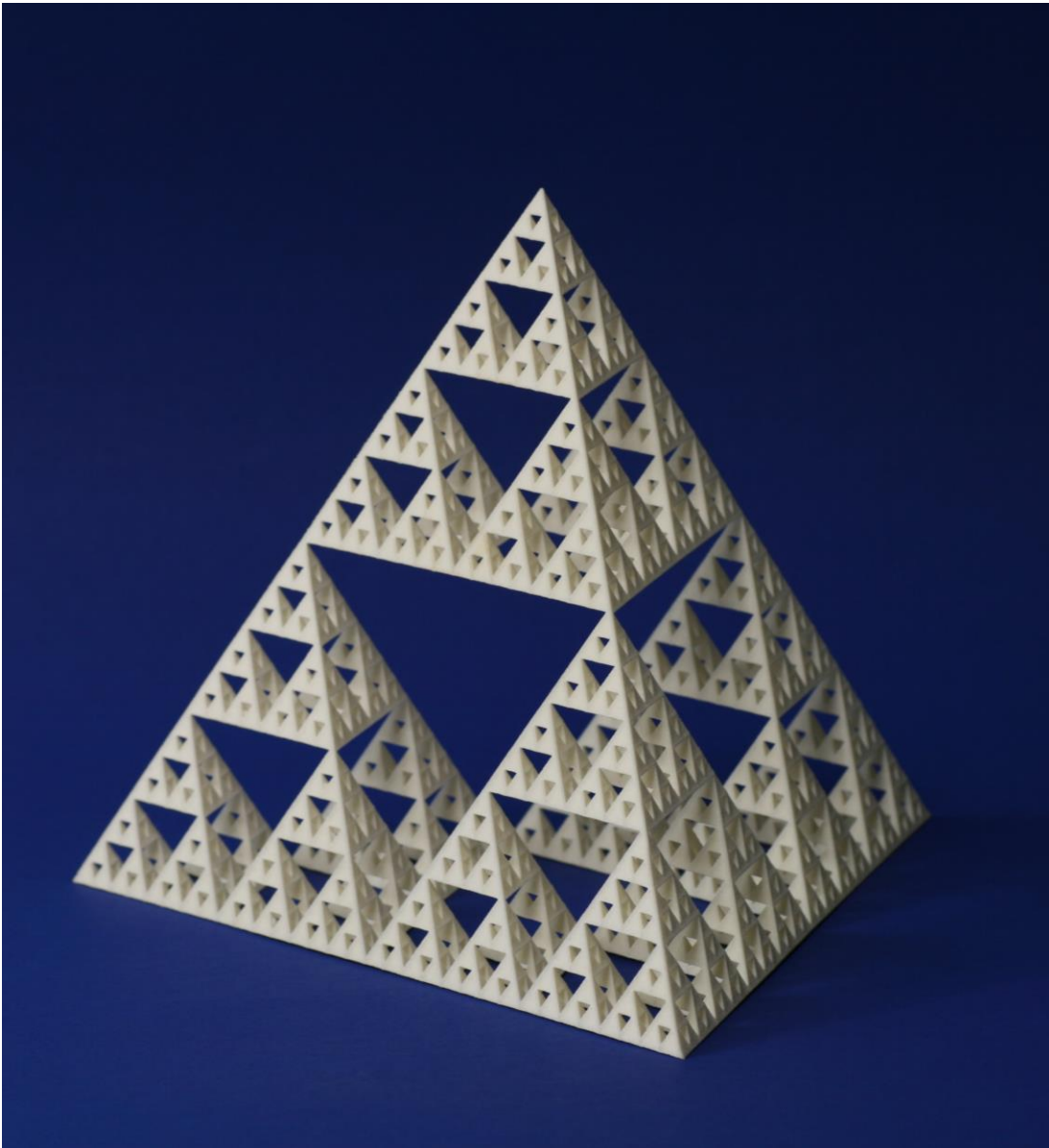
Annex 1 (圖 1)



Annex 2 (圖 2)



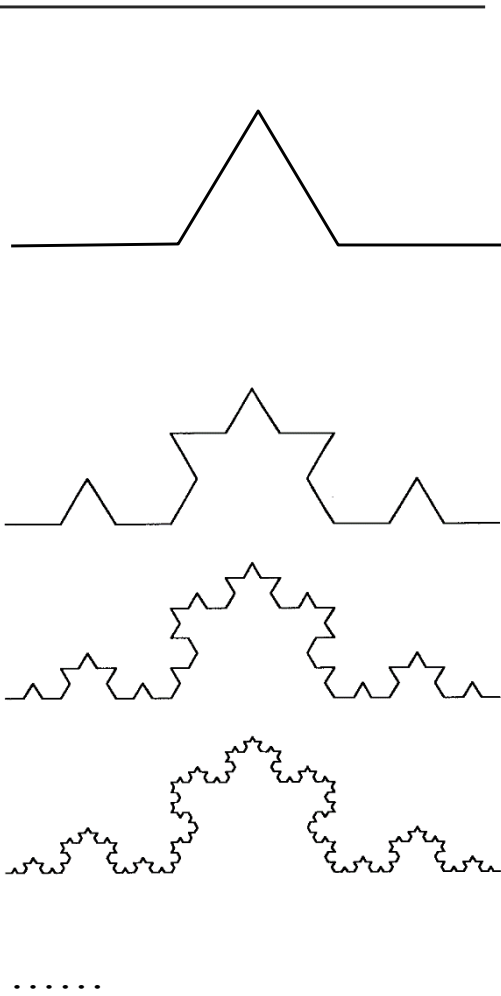
Annex 3 (圖 3)



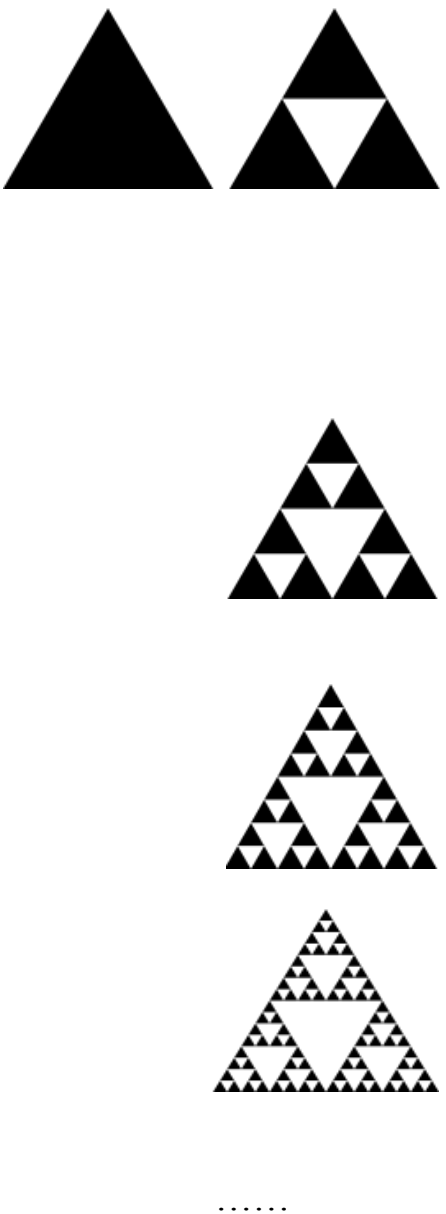
注釋:

Notes:

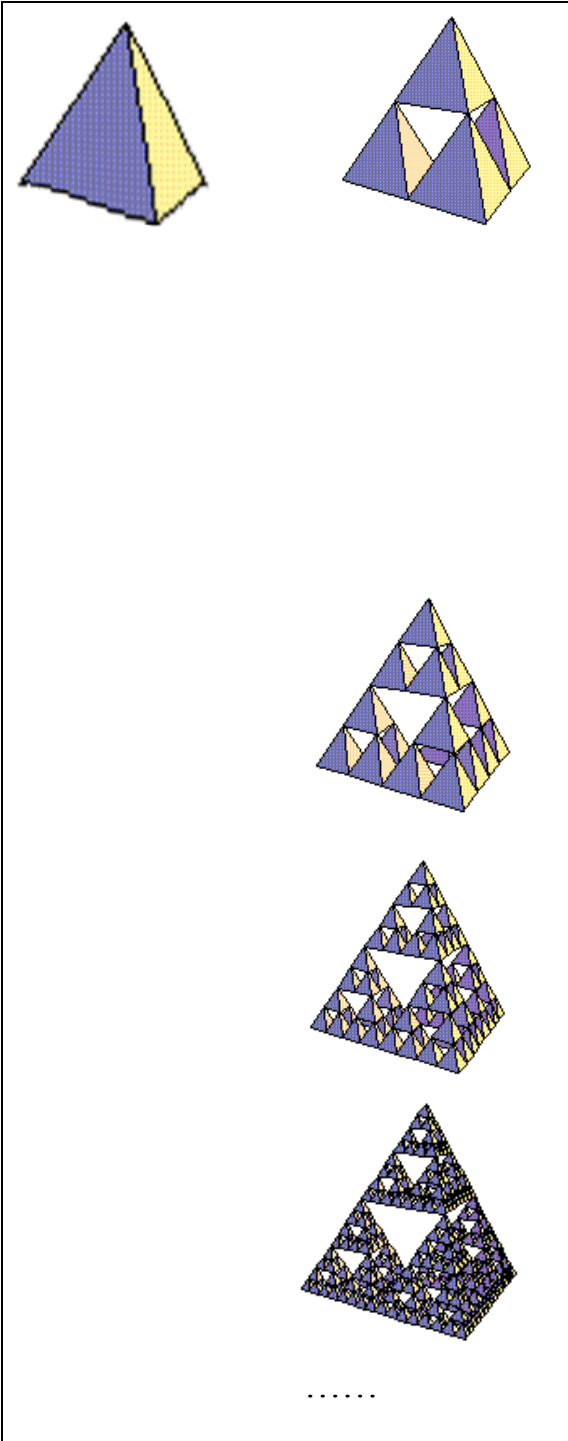
I. 科赫曲線 (Koch curve) :

	<ol style="list-style-type: none">1. i. 將直線線段分成三等份。 Cut a line segment into three equal part.ii. 在中間的線段畫一個等邊<u>三角形</u>。 Form an equilateral triangle on the segment in the middle.iii. 將這等邊<u>三角形</u>的底線段移去。 Remove the base of this triangle. <ol style="list-style-type: none">2. 對圖形的各個線段作(1)的各步驟以形成新的圖形。 Apply the steps in (1) to all the segments to form a new figure. <ol style="list-style-type: none">3. 在新的圖形上重複 (2) – (3)。 Repeat the step (2) – (3) in the new figure.
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II. 謝爾賓斯基三角形 (Sierpinski triangle) :

	<ol style="list-style-type: none">1. i. 取一個等邊實心的三角形。 Take a solid-filled triangle.ii. 沿三邊中點的連線，將它分成四個小三角形。 Join the midpoints of the three sides to form a smaller triangle.iii. 去掉中間的那一個小三角形。 Take away this smaller triangle formed in the middle. <ol style="list-style-type: none">2. 對圖形的各個實心三角形作(1)的各個步驟以形成新的圖形。 Apply the steps in (1) to all the solid-filled triangles to form a new figure. <ol style="list-style-type: none">3. 在新的圖形上重複 (2) – (3)。 Repeat the steps (2) – (3) in the new figure.
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III. 謝爾賓斯基金字塔 (Sierpinski pyramid) :

	<ol style="list-style-type: none">1. i. 取一個等邊實心的三角金字塔。 Take a pyramid with a triangular base.ii. 沿六邊中點的連線，將它分成四個小三角金字塔。 Four smaller pyramids with triangular base can be formed by joining the midpoints of the six edges.iii. 去掉中間的部分只留下這四個小金字塔。 Cut away the portion in the middle leaving only these four smaller pyramids. <ol style="list-style-type: none">2. 就留下的小三角金字塔進行(1) 的各個步驟以形成新的立體圖形。 Apply the steps in (1) to all the remaining pyramids to form a new figure.3. 在新的圖形上重複 (2) – (3)。 Repeat the steps (2) – (3) in the new figure.
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