## Theorem 2 (28 October 2014)

No.	Name		Definition	Command	Value
1	Point A	• <sup>A</sup>			A = (-1, 1)
2	Point B	• <sup>A</sup>			B = (2, 1)
3	Polygon square2		Polygon[B, A, 4]	Polygon[B, A, 4]	square2 = 9
3	Segment c		Segment [B, A] of Polygon square2	Segment[B, A, square2]	c = 3
3	Segment m		Segment [A, H] of Polygon square2	Segment[A, H, square2]	m = 3
3	Point H		Polygon[B, A, 4]	Polygon[B, A, 4]	H = (-1, -2)
3	Point I		Polygon[B, A, 4]	Polygon[B, A, 4]	I = (2, -2)
3	Segment n		Segment [H, I] of Polygon square2	Segment[H, I, square2]	n = 3
3	Segment p		Segment [I, B] of Polygon square2	Segment[I, B, square2]	p = 3
4	Line q	<u> </u>	Line through A perpendicular to Line[A, B]	PerpendicularLine[A, Line[A, B]]	q: x = -1
	Point C	• `	Point on q	Point[q]	C = (-1, 3)
6	Polygon square3	<u> </u>	Polygon[C, B, 4]	Polygon[C, B, 4]	square3 = 13
6	Segment a		Segment [C, B] of Polygon square3	Segment[C, B, square3]	a = 3.61
6	Segment b <sub>1</sub>		Segment [B, D] of Polygon square3	Segment[B, D, square3]	$b_1 = 3.61$
6	Point D		Polygon[C, B, 4]	Polygon[C, B, 4]	D = (4, 4)
6	Point E		Polygon[C, B, 4]	Polygon[C, B, 4]	E = (1, 6)
6	Segment c <sub>1</sub>		Segment [D, E] of Polygon square3	Segment[D, E, square3]	c <sub>1</sub> = 3.61
6	Segment d		Segment [E, C] of Polygon square3	Segment[E, C, square3]	d = 3.61
7	Polygon square1	<u></u>	Polygon[A, C, 4]	Polygon[A, C, 4]	square1 = 4
7	Segment b	•	Segment [A, C] of Polygon square1	Segment[A, C, square1]	b = 2
7	Segment f		Segment [C, F] of Polygon square1	Segment[C, F, square1]	f = 2
7	Point F		Polygon[A, C, 4]	Polygon[A, C, 4]	F = (-3, 3)
7	Point G		Polygon[A, C, 4]	Polygon[A, C, 4]	G = (-3, 1)
7	Segment g		Segment [F, G] of Polygon square1	Segment[F, G, square1]	g = 2
7	Segment h		Segment [G, A] of Polygon square1	Segment[G, A, square1]	h = 2
8	Number sum		square1 + square2	square1 + square2	sum = 13