

Polyhedron

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INPUT R

N=4

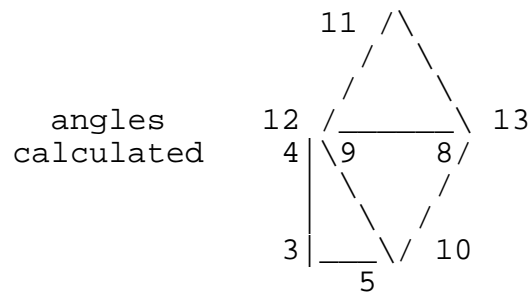
N=5

N=6

PRINT

P O L Y H E D R O N

N = 4 -> irregular dodecahedron
 N = 5 -> irregular icositetrahedron
 N = 6 -> irregular hexecontahedron



(see documentation of Jean-François Rotgé)

polyhedron



```
// ##### IRREGULAR DODECAHEDRON #####
LBL B
INV STF 5 INV STF 6 STF 4
R/S

// ##### IRREGULAR ICOSITETRAHEDRON #####
LBL C
INV STF 4 INV STF 6 STF 5
R/S

// ##### IRREGULAR HEXECONTAHEDRON #####
LBL D
INV STF 4 INV STF 5 STF 6
R/S

// ##### PRINT #####
LBL E
OP 00
ADV 4 OP 04
RCL 03 OP 06
5 OP 04
RCL 04 OP 06
6 OP 04
RCL 05 OP 06
ADV 1 1 OP 04
RCL 08 OP 06
1 2 OP 04
RCL 09 OP 06
2 0 1 OP 04
RCL 10 OP 06
ADV 2 0 2 OP 04
RCL 11 OP 06
2 0 3 OP 04
RCL 12 OP 06
2 0 4 OP 04
RCL 13 OP 06
CLR
R/S

// ##### INPUT R #####
LBL A
CMS
STO 01

// ##### JF ROTGE PROGRAM #####
RCL 01 STO 00 PRT
CP RCL 02
INV EQ SQR
RCL 01 + 1 =
1/X * RCL 01 X2 =
STO 02
LBL SQR
PRT
IFF 04 STO
IFF 05 RCL
IFF 06 SUM
LBL STO
CP 2 SQR STO 23 1 STO 26 SBR CLR
2 SQR * RCL 21 + RCL 20 =
```



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1/X * ( 1 + RCL 21 ) =
STO 33 RCL 33 * 2 SQR - 1 =
STO 34 RCL 20 - RCL 22 * 2 SQR =
1/X * ( 1 - RCL 22 ) =
STO 31 * 2 SQR - 1 =
+/- STO 37 SBR GRD CP
R/S
LBL RCL
CP 1 STO 23 2 SQR STO 26 SBR CLR
RCL 21 / 2 SQR + RCL 20 =
1/X STO 33 RCL 33 / 2 SQR =
STO 34 RCL 20 - RCL 22 =
1/X STO 31 +/- STO 37 SBR GRD CP
R/S
LBL SUM
CP 1 + 5 SQR =
/ 2 =
STO 26 - 1 =
STO 23 SBR CLR
2 - RCL 26 =
* RCL 21 =
STO 05 + RCL 20 =
1/X * ( 1 - RCL 05 ) =
STO 33 + 1 =
* ( 2 - RCL 26 ) =
STO 34 RCL 20 - RCL 22 / RCL 26 =
1/X * ( 1 + RCL 22 / RCL 26 ) =
STO 31 + 1 =
/ RCL 26 =
+/- STO 37 SBR GRD CP
R/S
LBL CLR
( 1 + RCL 01 =
* ( 1 + RCL 02 ) =
STO 04 RCL 23 / RCL 04 * ( 1 + RCL 02 + RCL 02 * RCL 01 ) =
STO 08 STO 27 RCL 26 / RCL 04 * RCL 01 =
STO 11 STO 28 1 - RCL 02 - RCL 01 * RCL 02 =
/ RCL 04 =
STO 14 STO 29 RCL 02 + RCL 01 + RCL 02 * RCL 01 =
* RCL 23 / RCL 04 =
STO 09 STO 10 RCL 26 / RCL 04 =
STO 12 +/- STO 13 RCL 02 - RCL 01 + RCL 01 * RCL 02 =
/ RCL 04 =
STO 15 +/- STO 16 RCL 09 - RCL 08 =
X2 + ( RCL 12 - RCL 11 ) X2 + ( RCL 15 - RCL 14 ) X2 =
SQR STO 32 2 * RCL 12 =
X2 + ( 2 * RCL 15 ) X2 =
SQR STO 38 RCL 10 - RCL 08 =
X2 + ( RCL 13 - RCL 11 ) X2 + ( RCL 16 - RCL 14 ) X2 =
SQR STO 39 3 STO 07
PGM 02 C
1 STO 20 STO 21 STO 22
PGM 02 E )
RTN
LBL GRD
( RCL 31 - RCL 27 =
X2 + RCL 28 X2 + ( RCL 37 - RCL 29 ) X2 =
SQR STO 35 RCL 33 - RCL 27 =
X2 + ( RCL 34 - RCL 28 ) X2 + RCL 29 X2 =

```



```
SQR STO 36 RCL 32 STO 06 RCL 38 STO 01 RCL 39 STO 02
PGM 11 A'
STO 08 PRT
PGM 11 B' STO 09 PRT
PGM 11 C' STO 10 PRT
RCL 35 STO 01 STO 02 RCL 39 STO 06
PGM 11 A'
STO 11
PGM 11 B' STO 12
PGM 11 C' STO 13 RCL 36 STO 01 STO 02 RCL 32 STO 06
PGM 11 A'
PGM 11 B'
PGM 11 C' 0 STO 02 )
RTN
```



L A B E L S		
001	12	B
012	13	C
023	14	D
034	15	E
116	11	A
145	34	SQR
157	42	STO
232	43	RCL
280	44	SUM
376	25	CLR
598	80	GRD

Adr	Branch.		
A'	662	16	A'
A'	690	16	A'
A'	715	16	A'
B'	668	17	B'
B'	695	17	B'
B'	718	17	B'
C	584	13	C
C'	674	18	C'
C'	700	18	C'
C'	721	18	C'
CLR	166	71	SBR
CLR	241	71	SBR
CLR	297	71	SBR
E	594	15	E
GRD	227	71	SBR
GRD	275	71	SBR
GRD	371	71	SBR
RCL	150	87	IFF
SQR	129	67	EQ
STO	147	87	IFF
SUM	153	87	IFF

Reg.	Instr.		
00	122	42	STO
01	118	42	STO
	120	43	RCL
	131	43	RCL
	138	43	RCL
	380	43	RCL
	408	43	RCL
	422	43	RCL
	434	43	RCL
	451	43	RCL
	457	43	RCL
	485	43	RCL
	488	43	RCL
	654	42	STO
	680	42	STO
	705	42	STO
02	126	43	RCL
	142	42	STO
	387	43	RCL
	402	43	RCL
	405	43	RCL
	431	43	RCL
	437	43	RCL
	448	43	RCL
	454	43	RCL
	482	43	RCL
	491	43	RCL
	658	42	STO
	682	42	STO
	707	42	STO
	723	42	STO
03	041	43	RCL
04	048	43	RCL
	391	42	STO
	396	43	RCL
	419	43	RCL
	441	43	RCL
	464	43	RCL
	474	43	RCL
05	495	43	RCL
	055	43	RCL
	308	42	STO
06	319	43	RCL
	650	42	STO
	686	42	STO
	711	42	STO



07	580 42 STO
08	064 43 RCL 412 42 STO 506 43 RCL 553 43 RCL 663 42 STO
09	072 43 RCL 467 42 STO 503 43 RCL 669 42 STO
10	081 43 RCL 469 42 STO 550 43 RCL 675 42 STO
11	091 43 RCL 425 42 STO 515 43 RCL 562 43 RCL 691 42 STO
12	100 43 RCL 477 42 STO 512 43 RCL 534 43 RCL 696 42 STO
13	109 43 RCL 480 42 STO 559 43 RCL 701 42 STO
14	444 42 STO 524 43 RCL 571 43 RCL
15	498 42 STO 521 43 RCL 542 43 RCL
16	501 42 STO 568 43 RCL
20	174 43 RCL 198 43 RCL 249 43 RCL 263 43 RCL 311 43 RCL 338 43 RCL 586 42 STO



21	171	43	RCL
	182	43	RCL
	243	43	RCL
	305	43	RCL
	588	42	STO
22	201	43	RCL
	212	43	RCL
	266	43	RCL
	341	43	RCL
	352	43	RCL
	590	42	STO
23	161	42	STO
	235	42	STO
	295	42	STO
	393	43	RCL
	461	43	RCL
26	164	42	STO
	239	42	STO
	290	42	STO
	301	43	RCL
	332	43	RCL
	344	43	RCL
	355	43	RCL
	365	43	RCL
	416	43	RCL
27	414	42	STO
	603	43	RCL
	627	43	RCL
28	427	42	STO
	608	43	RCL
	636	43	RCL
29	446	42	STO
	616	43	RCL
	641	43	RCL
31	216	42	STO
	270	42	STO
	359	42	STO
	600	43	RCL
32	530	42	STO
	648	43	RCL
	709	43	RCL
33	186	42	STO
	188	43	RCL



	253	42	STO
	255	43	RCL
	323	42	STO
	624	43	RCL
34	196	42	STO
	261	42	STO
	336	42	STO
	633	43	RCL
35	622	42	STO
	678	43	RCL
36	646	42	STO
	703	43	RCL
37	225	42	STO
	273	42	STO
	369	42	STO
	613	43	RCL
38	548	42	STO
	652	43	RCL
39	577	42	STO
	656	43	RCL
	684	43	RCL

