

# Polyhedron V2

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INPUT R

N=4

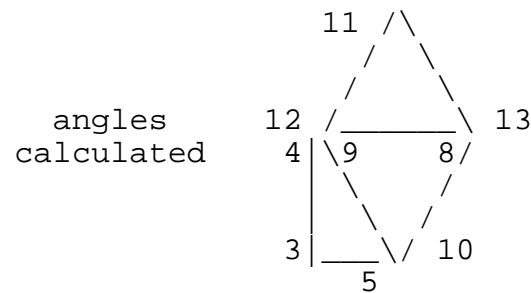
N=5

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



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// ##### 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
CUT
LPG 01 A
LBL E'
LPG 03 A
LPG 04 A
CLR
R/S

// ##### INPUT R #####
LBL A
NOP
STO 01
CUT
LPG 01 A

// ##### JF ROTGE PROGRAM #####
3 5 OP 04 RCL 01 STO 00 OP 06
2 6 OP 04 RCL 02 OP 06 RCL 01
CP RCL 02
INV EQ SQR
RCL 01 + 1 =
1/X * RCL 01 X2 =
STO 02
LBL SQR
IFF 04 STO
IFF 05 RCL
IFF 06 SUM
LBL STO
3 1 OP 04 4 OP 06
CP 2 SQR STO 23 1 STO 26 SBR CLR
2 SQR * RCL 21 + RCL 20 =
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
E'
R/S
LBL RCL
3 1 OP 04 5 OP 06
CP 1 STO 23 2 SQR STO 26 SBR CLR

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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
E'
R/S
LBL SUM
3 1 OP 04 6 OP 06
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
E'
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
LPG 02 C
1 STO 20 STO 21 STO 22
LPG 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
LPG 11 A'
STO 08
LPG 11 B' STO 09
LPG 11 C' STO 10
RCL 35 STO 01 STO 02 RCL 39 STO 06

```



```
LPG 11 A'  
STO 11  
LPG 11 B' STO 12  
LPG 11 C' STO 13 RCL 36 STO 01 STO 02 RCL 32 STO 06  
LPG 11 A'  
LPG 11 B'  
LPG 11 C' 0 STO 02 )  
RTN
```



L A B E L S		
001	12	B
012	13	C
023	14	D
034	15	E
040	10	E'
050	11	A
098	34	SQR
109	42	STO
192	43	RCL
248	44	SUM
352	25	CLR
574	80	GRD

Adr	Branch.		
A	038	11	A
A	043	11	A
A	046	11	A
A	057	11	A
A'	638	16	A'
A'	663	16	A'
A'	688	16	A'
B'	643	17	B'
B'	668	17	B'
B'	691	17	B'
C	560	13	C
C'	648	18	C'
C'	673	18	C'
C'	694	18	C'
CLR	125	71	SBR
CLR	208	71	SBR
CLR	272	71	SBR
E	570	15	E
E'	189	10	E'
E'	245	10	E'
E'	349	10	E'
GRD	186	71	SBR
GRD	242	71	SBR
GRD	346	71	SBR
RCL	102	87	IFF
SQR	082	67	EQ
STO	099	87	IFF
SUM	105	87	IFF

Reg.	Instr.		
00	064	42	STO
01	052	42	STO
	062	43	RCL
	076	43	RCL
	084	43	RCL
	091	43	RCL
	356	43	RCL
	384	43	RCL
	398	43	RCL
	410	43	RCL
	427	43	RCL
	433	43	RCL
	461	43	RCL
	464	43	RCL
	630	42	STO
	653	42	STO
	678	42	STO
02	072	43	RCL
	079	43	RCL
	095	42	STO
	363	43	RCL
	378	43	RCL
	381	43	RCL
	407	43	RCL
	413	43	RCL
	424	43	RCL
	430	43	RCL
	458	43	RCL
	467	43	RCL
	634	42	STO
	655	42	STO
	680	42	STO
	696	42	STO
04	367	42	STO
	372	43	RCL
	395	43	RCL
	417	43	RCL
	440	43	RCL
	450	43	RCL
05	283	42	STO
	294	43	RCL
06	626	42	STO
	659	42	STO
	684	42	STO
07	556	42	STO



08	388	42	STO
	482	43	RCL
	529	43	RCL
	639	42	STO
09	443	42	STO
	479	43	RCL
	644	42	STO
10	445	42	STO
	526	43	RCL
	649	42	STO
11	401	42	STO
	491	43	RCL
	538	43	RCL
	664	42	STO
12	453	42	STO
	488	43	RCL
	510	43	RCL
	669	42	STO
13	456	42	STO
	535	43	RCL
	674	42	STO
14	420	42	STO
	500	43	RCL
	547	43	RCL
15	474	42	STO
	497	43	RCL
	518	43	RCL
16	477	42	STO
	544	43	RCL
20	133	43	RCL
	157	43	RCL
	216	43	RCL
	230	43	RCL
	286	43	RCL
	313	43	RCL
21	562	42	STO
	130	43	RCL
	141	43	RCL
	210	43	RCL
	280	43	RCL
22	564	42	STO
	160	43	RCL



	171	43	RCL
	233	43	RCL
	316	43	RCL
	327	43	RCL
	566	42	STO
23	120	42	STO
	202	42	STO
	270	42	STO
	369	43	RCL
	437	43	RCL
26	123	42	STO
	206	42	STO
	265	42	STO
	276	43	RCL
	307	43	RCL
	319	43	RCL
	330	43	RCL
	340	43	RCL
	392	43	RCL
27	447	43	RCL
	390	42	STO
	579	43	RCL
28	603	43	RCL
	403	42	STO
	584	43	RCL
29	612	43	RCL
	422	42	STO
	592	43	RCL
31	617	43	RCL
	175	42	STO
	237	42	STO
	334	42	STO
32	576	43	RCL
	506	42	STO
	624	43	RCL
33	682	43	RCL
	145	42	STO
	147	43	RCL
	220	42	STO
	222	43	RCL
34	298	42	STO
	600	43	RCL
	155	42	STO
	228	42	STO
	311	42	STO



	609	43	RCL
35	598	42	STO
	651	43	RCL
36	622	42	STO
	676	43	RCL
37	184	42	STO
	240	42	STO
	344	42	STO
	589	43	RCL
38	524	42	STO
	628	43	RCL
39	553	42	STO
	632	43	RCL
	657	43	RCL





S U B - P R O G R A M S		
036	...01.t58	polyhedron01 sub-program for polyhedron V2
041	...03.t58	polyhedron03 sub-program for polyhedron V2
044	...04.t58	polyhedron04 sub-program for polyhedron V2
055	...01.t58	polyhedron01 sub-program for polyhedron V2
558	...02.t58	polyhedron02 sub-program for polyhedron V2
568	...02.t58	polyhedron02 sub-program for polyhedron V2
636	...11.t58	polyhedron11 sub-program for polyhedron V2
641	...11.t58	polyhedron11 sub-program for polyhedron V2
646	...11.t58	polyhedron11 sub-program for polyhedron V2
661	...11.t58	polyhedron11 sub-program for polyhedron V2
666	...11.t58	polyhedron11 sub-program for polyhedron V2
671	...11.t58	polyhedron11 sub-program for polyhedron V2
686	...11.t58	polyhedron11 sub-program for polyhedron V2
689	...11.t58	polyhedron11 sub-program for polyhedron V2
692	...11.t58	polyhedron11 sub-program for polyhedron V2

