

# Program Description 1

Program Title BASE BALL

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**Program Description, Equations, Variables**

THIS IS A VERY COMPETITIVE GAME BETWEEN 2 PEOPLE. AFTER INITIALIZATION YOU MAY EITHER TAKE THE PITCH, (A BALL OR STRIKE WILL RESULT) OR SWING AWAY (IN WHICH CASE YOU WILL GET EITHER AN OUT, SINGLE, DOUBLE, TRIPLE OR HOME RUN.) THE HIT YOU RECEIVE WILL ADVANCE RUNNERS AN APPROPRIATE NUMBER OF BASES. SINGLE 1 BASE, DOUBLE 2 BASES, A TRIPLE 3 BASES, A HOME RUN SCORES ALL RUNNERS. AN OUT WILL KEEP THE RUNNERS WHERE THEY WERE. THE CHANCES FOR SUCCESS ARE AS FOLLOWS.

IF YOU TAKE, 43% OF THE TIME A BALL WILL RESULT  
57% OF THE TIME A STRIKE WILL RESULT

4 BALLS ARE A WALK 3 STRIKES ARE AN OUT. AS IN BASEBALL.

IF YOU SWING 68% OF THE TIME YOU WILL BE OUT.  
24% OF THE TIME YOU WILL HIT A SINGLE  
05% OF THE TIME YOU WILL HIT A DOUBLE  
1% OF THE TIME YOU WILL HIT A TRIPLE  
2% OF THE TIME A HOME RUN WILL RESULT.

**Operating Limits and Warnings**

THERE IS 1 MINOR INACCURACY IN THE PROGRAM, ALL WALKS ARE COUNTED AS SINGLES, IN OTHER WORDS A WALK WILL ADVANCE A RUNNER FORCED OR NOT. AT THE END OF 9 INNINGS, THE GAME WILL GO IN AN INFINITE LOOP DISPLAYING THE SCORE CONTINUOUSLY.

This program has been verified only with respect to the numerical example given in *Program Description II*. User accepts and uses this program material AT HIS OWN RISK, in reliance solely upon his own inspection of the program material and without reliance upon any representation or description concerning the program material.

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Sketch(es)	EXPLANATION
	<p>-0.010</p> <p>0 OUTS 1 MAN ON SECOND</p> <p>See CIRCLED EX. BELOW</p>

**Sample Problem(s)** STORE SEED .258741369 AND CONSTANTS  
 INITIALIZE [A] 0.0 TAKE PITCH [B] 0.1 A STRIKE  
 TAKE [B] 1.1 BALL [B] 1.2 1 BALL 2 STRIKES. (2.0 FOR  
 EXAMPLE MEANS 2 BALLS NO STRIKES (BALL. STRIKE)) [C] SWING  
 (2.\* -0.010\*) 0.00\*\* 0.0) A DOUBLE MAN ON SECOND NO  
 SCORE. 2 SIGNIFYS TYPE OF HIT 2 is Double 0 is OUT 1 is  
 SINGLE 3 is TRIPLE 4 is A HOME RUN. 0.00 is the SCORE  
 PLAYER 1'S SCORE is ON LEFT SIDE OF DISPLAY (EX. 2.03  
 MEANS PLAYER 2 LEADS 3-2.) IT STOPS DISPLAYING 0.0  
 NO BALLS OR STRIKES FOR NEXT BATTER. [C] SWING (0.\* -1.010\*  
 0.00\*\* 0.0) 1 OUT. [C] SWING (1.\* -1.101\* 0.00 0.0)  
 A SINGLE MEN ON FIRST AND THIRD. [B] TAKE 0.1 [B]  
 TAKE 0.2 (GOOD PITCHER! 2 STRIKES 0 BALLS) SWING [C]  
 (0.\* -2.101\* 0.00\*\* 0.0) SWING [E] (4.\* -2.000\* 3.00\*\*  
 0.0) A HOME RUN! NOT BAD! SWING [E] (1.\*  
 -2.001\* 3.00\*\* 0.0) SINGLE. [B] TAKE 0.1 [B] TAKE  
 1.1 [B] TAKE 1.2 GIVE ME A BREAK SWING! [E] (0.000000  
 -0.5\* 3.00\* 0.0) ALL ZERO'S MEAN 3 OUTS,  
 INNING IS OVER -0.5 shows 1/2 AN INNING IS OVER  
 3.00 is the Score 0.0 shows 0 BALLS 0 STRIKES  
 FOR BATTER OF TEAM 2. YOUR UP GOOD LUCK!

**Reference(s)**

\* = 5 SECOND PAUSE

\*\* = 1 SECOND PAUSE

# User Instructions

00555D

REVIEW  
BASEBALL

INIT. TAKE SWING

STEP	INSTRUCTIONS	INPUT DATA/UNITS	KEYS	OUTPUT DATA/UNITS
1	LOAD SIDE 1 AND 2		<input type="checkbox"/> <input type="checkbox"/>	
2	STORE CONSTANTS :	100	STO B	
		1000	STO C	
		.5	STO E	
3	ALSO STORE A RANDOM Seed		<input type="checkbox"/> <input type="checkbox"/>	
	X 0<X<1	X	STO D	
4	INITIALIZE		A <input type="checkbox"/>	0.0
5	B is FOR TAKING	TAKE	B <input type="checkbox"/>	
	C is FOR SWINGING	SWING	C <input type="checkbox"/>	
6	PLAY UP TO 9 INNINGS AND		<input type="checkbox"/> <input type="checkbox"/>	
	FOR A NEW GAME CLEAR REGISTERS		F CLRREG	
	AND GO TO STEP 2		<input type="checkbox"/> <input type="checkbox"/>	
7	THE REVIEW Key :		F b	
	WILL SHOW THE LAST HIT OF		<input type="checkbox"/> <input type="checkbox"/>	
	OUT YOU MADE	1.(LP)	<input type="checkbox"/> <input type="checkbox"/>	
	THE CURRENT BASE SITUATION	-1.100(LP)	<input type="checkbox"/> <input type="checkbox"/>	
	1 OUT AND 1 MAN ON BASE (THIRD)		<input type="checkbox"/> <input type="checkbox"/>	
	THE SCORE. 1 RUN FOR PLAYER 2	0.01(SP)	<input type="checkbox"/> <input type="checkbox"/>	
	THEN IT WILL STOP DISPLAYING		<input type="checkbox"/> <input type="checkbox"/>	
	THE NUMBER OF BALLS AND	0.2(ST)	<input type="checkbox"/> <input type="checkbox"/>	
	STRIKES. THIS KEY CAN BE USED		<input type="checkbox"/> <input type="checkbox"/>	
	TO REVIEW AT ANY STOPPAGE OF		<input type="checkbox"/> <input type="checkbox"/>	
	THE CALCULATOR. NOT ON A PAUSE.		<input type="checkbox"/> <input type="checkbox"/>	
	LP MEANS LONG PAUSE 5 sec.		<input type="checkbox"/> <input type="checkbox"/>	
	SP MEANS SHORT PAUSE 1 sec.		<input type="checkbox"/> <input type="checkbox"/>	
	ST MEANS STOPPED.		<input type="checkbox"/> <input type="checkbox"/>	
	TO CHANGE ODDS.		<input type="checkbox"/> <input type="checkbox"/>	
	ON STEP 89/90 IT SAYS 24 INCREASING		<input type="checkbox"/> <input type="checkbox"/>	
	THE NUMBER INCREASES THE CHANCE		<input type="checkbox"/> <input type="checkbox"/>	
	OF A SINGLE <u>STEP NO.</u>		<input type="checkbox"/> <input type="checkbox"/>	
	1-24 is A SINGLE 89/90		<input type="checkbox"/> <input type="checkbox"/>	
	25-29 is A DOUBLE 99/100		<input type="checkbox"/> <input type="checkbox"/>	
	30-31 is A HOMERUN 104/105		<input type="checkbox"/> <input type="checkbox"/>	
	50 is A TRIPLE (DO NOT CHANGE)		<input type="checkbox"/> <input type="checkbox"/>	
	FOR EXAMPLE USE		<input type="checkbox"/> <input type="checkbox"/>	
	26 33 36 <del>WILL</del> INSTEAD OF		<input type="checkbox"/> <input type="checkbox"/>	
	24 29 31 WILL MAKE IT MORE		<input type="checkbox"/> <input type="checkbox"/>	
	OF A HITTERS PUEL.		<input type="checkbox"/> <input type="checkbox"/>	
	21 26 27 MAKES IT A PITCHERS GAME		<input type="checkbox"/> <input type="checkbox"/>	

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	FLBLA	312511			STO 9	3309	
	FGSBI	312201			STO A	3311	
	RCL B	3412			GTO FD	223112	
	X	71		060	FLBL4	312504	
	FINT	3183			RCL E	3415	
	STO10	3301			STO+5	336105	
	FGSBI	312201			O	00	
	7	07			DSP 9	2309	
	X	71			H PAUSE	3572	
010	FINT	3183			STO 3	3303	
	3	03			STO 7	3307	
	—	51			STO 9	3309	
	STO 2	3302			RCL 5	3405	
	RCL 9	3409		070	CHS	42	
	DSP 1	2301			DSP 1	2301	
	HRTN	3522			F-X-	3184	
	FLBLB	312512			RCL 6	3406	
	RCL 2	3402			DSP 2	2302	
	FX<O	3171			F-X-	3184	
020	GTO O	2200			9	09	
	.	83			RCL 5	3405	
	1	01			GX=Y	3251	
	STO+9	336109			GTO 5	2205	
	RCL 9	3409		080	GTO A	2211	
	GFRAC	3283			FLBL5	312505	
	.	83			RCL 6	3406	
	3	03			H PAUSE	3572	
	GX=Y	3251			GTO 5	2205	
	GTO 2	2202			FLBLC	312513	
030	GTO A	2211			O	00	
	FLBL1	312501			STO 9	3309	
	H Y	3573			RCL 1	3401	
	RCL D	3414			2	02	TO CHANGE SINGLES
	+	61		090	4	04	
	5	05			GX7Y	3281	
	H Y X	3563			GTO 3	2203	
	GFRAC	3283			RCL 1	3401	
	STO D	3314			5	05	DO NOT CHANGE TRIPLES
	HRTN	3522			O	00	
040	FLBL O	312500			GX=Y	3251	
	1	01			GTO 7	2207	
	STO+9	336109			RCL 1	3401	
	RCL 9	3409			2	02	TO CHANGE DOUBLES
	FINT	3183		100	9	09	
	4	04			GX7Y	3281	
	GX=Y	3251			GTO 6	2206	
	GTO 3	2203			RCL 1	3401	
	GTO A	2211			3	03	TO CHANGE HOMERUNS
	FLBL 2	312502			1	01	
050	1	01			GX7Y	3281	
	STO+3	336103			GTO 8	2208	
	RCL 3	3403			GTO 2	2202	
	3	03			FLBL 3	312503	
	GX=Y	3251		110	O	00	
	GTO 4	2204			STO 9	3309	
	O	00			RCL 7	3407	

## REGISTERS

02 <del>R. SEED</del>	1 HIT or OUT	2 B? or S?	3 <del>R. SEED</del>	4 USED	5 <del>SCORE</del>	6 SCORE	7 USED	8 USED	9 B.S
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9
A TYPE OF HIT	B 100	C 1000	D R. SEED	E 0.50	F USED				

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
	1	01			CHS	42	
	0	00		170	F-X-	3184	
	X	71			RCL 6	3406	
	1	01			DSP 2	2302	
	+	61			H PAUSE	3572	
	STO 7	3307			GTO A	2211	
	1	01			GLBLfa	322511	
120	STO A	3311			RCL 7	3407	
	GTO Fc	223113			RCL C	3413	
	FLBL 6	312506			÷	81	
	RCL 7	3407			F INT	3183	
	RCLB	3412		180	STO 8	3308	
	X	71			HLSTX	3582	
	1	01			GFRAC	3283	
	0	00			HSTI	3533	
	+	61			RCL C	3413	
	STO 7	3307			X	71	
130	2	02			STO 7	3307	
	STO A	3311			3	03	
	GTO Fc	223113			STO 4	3304	
	FLBL 7	312507			GLBLfd	322514	
	RCL 7	3407		190	RCL 8	3408	
	RCL C	3413			RCL 4	3404	
	X	71			G10 <sup>x</sup>	3253	
	RCL B	3412			÷	81	
	+	61			F INT	3183	
	STO 7	3307			STO +0	336100	
140	3	03			HLSTX	3582	
	STO A	3311			H X↔Y	3552	
	GTO Fc	223113			—	51	
	FLBL 8	312508			RCL 4	3404	
	RCL 7	3407		200	G10 <sup>x</sup>	3253	
	4	04			X	71	
	G10 <sup>x</sup>	3253			STO 8	3308	
	X	71			1	01	
	RCL C	3413			STO -4	335104	
	+	61			RCL 4	3404	
150	STO 7	3307			FX≠0	3161	
	4	04			FX>0	3181	
	STO A	3311			GTO fd	223114	
	GLBLFc	322513			RCL 5	3405	
	RCL 7	3407		210	GFRAC	3283	
	RCL C	3413			RCL E	3415	
	G X↔Y	3271			G X=Y	3251	
	GTO fa	223111			G-GSBfe	322215	
	GLBLfb	322512			RCL 0	3400	
	DSP 0	2300			STO +6	336106	
160	RCL A	3411			0	00	
	F-X-	3184			STO 0	3300	
	RCL 7	3407			GTO fb	223112	
	RCL C	3413			GLBLfe	322515	
	÷	81		220	RCL 0	3400	
	<del>HSTI</del> H STI 3533		← H STI		RCL B	3412	
	DSP 3	2303			÷	81	
	RCL 3	3403			STO 0	3300	
	+	61			H RTN	3522	

LABELS					FLAGS	SET STATUS		
A INIT.	B TAKE	C SWING	D N.U	E N.U	0	FLAGS	TRIG	DISP
a USED	b USED	c USED	d USED	e DIVISION	1	ON OFF		
0 USED	1 Random Seed	2 USED	3 USED	4 USED	2	0 <input type="checkbox"/> <input checked="" type="checkbox"/>	DEG <input checked="" type="checkbox"/>	FIX <input checked="" type="checkbox"/>
5 USED	6 USED	7 USED	8 USED	9 N.U	3	1 <input type="checkbox"/> <input checked="" type="checkbox"/>	GRAD <input type="checkbox"/>	SCI <input type="checkbox"/>
						2 <input type="checkbox"/> <input checked="" type="checkbox"/>	RAD <input type="checkbox"/>	ENG <input type="checkbox"/>
						3 <input type="checkbox"/> <input checked="" type="checkbox"/>		n <u>0</u>