

# Hammurabi

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In this game you direct the administrator of Sumeria, Hammurabi, how to manage the city. The city initially has 1,000 acres, 100 people and 3,000 bushels of grain in storage.

You may buy and sell land with your neighboring city-states for bushels of grain — the price will vary between 17 and 26 bushels per acre. You also must use grain to feed your people and as seed to plant the next year's crop.

You will quickly find that a certain number of people can only tend a certain amount of land and that people starve if they are not fed enough. You also have the unexpected to contend with such as a plague, rats destroying stored grain, and variable harvests.

You will also find that managing just the few resources in this game is not a trivial job over a period of say ten years. The crisis of population density rears its head very rapidly.

This program was originally written in Focal at DEC; author unknown. David Ahl converted it to BASIC and added the 10-year performance assessment. If you wish to change any of the factors, the extensive remarks in the program should make modification fairly straightforward.

Note for trivia buffs: somewhere along the line an m was dropped out of the spelling of Hammurabi in the Ahl version of the computer program. This error has spread far and wide until a generation of students who have used this program now think that Hammurabi is the incorrect spelling.

HAMURABI  
CREATIVE COMPUTING MORRISTOWN, NEW JERSEY

TRY YOUR HAND AT GOVERNING ANCIENT SUMERIA  
FOR A TEN-YEAR TERM OF OFFICE.

HAMURABI: I BEG TO REPORT TO YOU,  
IN YEAR 1, 0 PEOPLE STARVED, 5 CAME TO THE CITY,  
POPULATION IS NOW 100  
THE CITY NOW OWNS 1000 ACRES.  
YOU HARVESTED 3 BUSHELS PER ACRE.  
RATS ATE 200 BUSHELS.  
YOU NOW HAVE 2800 BUSHELS IN STORE.

LAND IS TRADING AT 24 BUSHELS PER ACRE.  
HOW MANY ACRES DO YOU WISH TO BUY? 10

HOW MANY BUSHELS DO YOU WISH TO FEED YOUR PEOPLE? 2000

HOW MANY ACRES DO YOU WISH TO PLANT WITH SEED? 990

HAMURABI: I BEG TO REPORT TO YOU,  
IN YEAR 2, 0 PEOPLE STARVED, 5 CAME TO THE CITY,  
POPULATION IS NOW 105  
THE CITY NOW OWNS 1010 ACRES.  
YOU HARVESTED 3 BUSHELS PER ACRE.  
RATS ATE 16 BUSHELS.  
YOU NOW HAVE 3019 BUSHELS IN STORE.

LAND IS TRADING AT 21 BUSHELS PER ACRE.  
HOW MANY ACRES DO YOU WISH TO BUY? 25

HOW MANY BUSHELS DO YOU WISH TO FEED YOUR PEOPLE? 2000

HOW MANY ACRES DO YOU WISH TO PLANT WITH SEED? 1000  
HAMURABI: THINK AGAIN. YOU HAVE ONLY  
494 BUSHELS OF GRAIN. NOW THEN,  
HOW MANY ACRES DO YOU WISH TO PLANT WITH SEED? 500

HAMURABI: I BEG TO REPORT TO YOU,  
IN YEAR 3, 5 PEOPLE STARVED, 5 CAME TO THE CITY,  
A HORRIBLE PLAGUE STRUCK! HALF THE PEOPLE DIED.  
POPULATION IS NOW 52  
THE CITY NOW OWNS 1035 ACRES.  
YOU HARVESTED 1 BUSHELS PER ACRE.  
RATS ATE 0 BUSHELS.  
YOU NOW HAVE 744 BUSHELS IN STORE.

LAND IS TRADING AT 17 BUSHELS PER ACRE.  
HOW MANY ACRES DO YOU WISH TO BUY? 0  
HOW MANY ACRES DO YOU WISH TO SELL? 25

HOW MANY BUSHELS DO YOU WISH TO FEED YOUR PEOPLE? 1000

HOW MANY ACRES DO YOU WISH TO PLANT WITH SEED? 500  
HAMURABI: THINK AGAIN. YOU HAVE ONLY  
169 BUSHELS OF GRAIN. NOW THEN,  
HOW MANY ACRES DO YOU WISH TO PLANT WITH SEED? 300

HAMURABI: I BEG TO REPORT TO YOU,  
IN YEAR 4, 2 PEOPLE STARVED, 12 CAME TO THE CITY,  
POPULATION IS NOW 62  
THE CITY NOW OWNS 1010 ACRES.  
YOU HARVESTED 1 BUSHELS PER ACRE.  
RATS ATE 0 BUSHELS.  
YOU NOW HAVE 319 BUSHELS IN STORE.

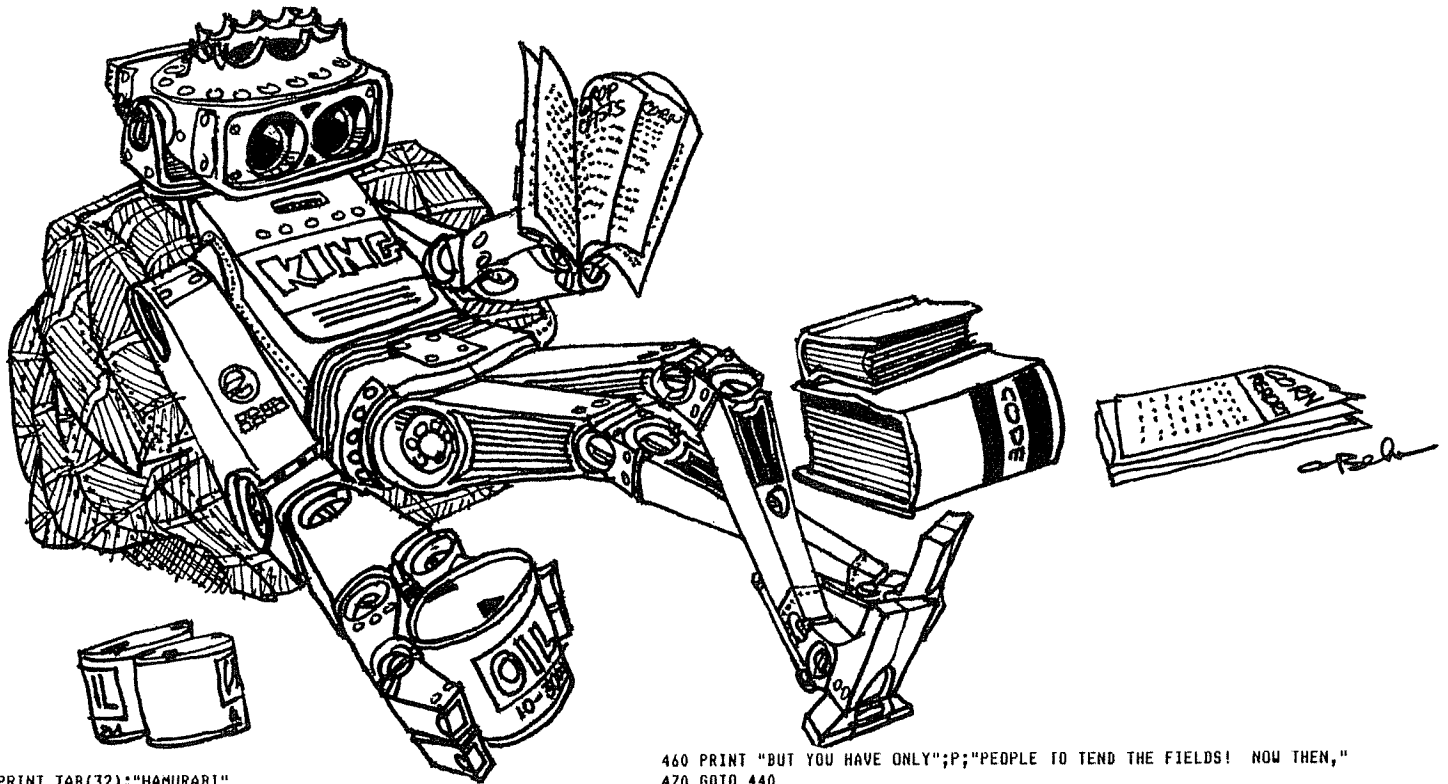
LAND IS TRADING AT 23 BUSHELS PER ACRE.  
HOW MANY ACRES DO YOU WISH TO BUY? 0  
HOW MANY ACRES DO YOU WISH TO SELL? 500

HOW MANY BUSHELS DO YOU WISH TO FEED YOUR PEOPLE? 500

HOW MANY ACRES DO YOU WISH TO PLANT WITH SEED? 230

YOU STARVED 37 PEOPLE IN ONE YEAR!!!  
DUE TO THIS EXTREME MISMANAGEMENT YOU HAVE NOT ONLY  
BEEN IMPEACHED AND THROWN OUT OF OFFICE BUT YOU HAVE  
ALSO BEEN DECLARED NATIONAL FINK!!!

SO LONG FOR NOW.



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10 PRINT TAB(32);"HAMURABI"
20 PRINT TAB(15);"CREATIVE COMPUTING MORRISTOWN, NEW JERSEY"
30 PRINT:PRINT
80 PRINT "TRY YOUR HAND AT GOVERNING ANCIENT SUMERIA"
90 PRINT "FOR A TEN-YEAR TERM OF OFFICE.":PRINT
95 D1=0: P1=0
100 Z=0: P=95:S=2800: H=3000: E=H-S
110 Y=3: A=H/Y: I=5: Q=1
210 D=0
215 PRINT:PRINT:PRINT "HAMURABI: I BEG TO REPORT TO YOU,": Z=Z+1
217 PRINT "IN YEAR";Z;",";D;"PEOPLE STARVED,":I;"CAME TO THE CITY,"
218 P=P+I
227 IF Q>0 THEN 230
228 P=INT(P/2)
229 PRINT "A HORRIBLE PLAGUE STRUCK! HALF THE PEOPLE DIED."
230 PRINT "POPULATION IS NOW";P
232 PRINT "THE CITY NOW OWNS";A;"ACRES."
235 PRINT "YOU HARVESTED";Y;"BUSHEL PER ACRE."
250 PRINT "RATS ATE";E;"BUSHEL."
260 PRINT "YOU NOW HAVE";S;"BUSHEL IN STORE.": PRINT
270 IF Z=11 THEN 860
310 C=INT(10*RND(1)): Y=C+17
312 PRINT "LAND IS TRADING AT";Y;"BUSHEL PER ACRE."
320 PRINT "HOW MANY ACRES DO YOU WISH TO BUY";
321 INPUT Q: IF Q<0 THEN 850
322 IF Y<Q<=S THEN 330
323 GOSUB 710
324 GOTO 320
330 IF Q=0 THEN 340
331 A=A+Q: S=S-Y*Q: C=C+Q
334 GOTO 400
340 PRINT "HOW MANY ACRES DO YOU WISH TO SELL";
341 INPUT Q: IF Q<0 THEN 850
342 IF Q<A THEN 350
343 GOSUB 720
344 GOTO 340
350 A=A-Q: S=S+Y*Q: C=C-Q
400 PRINT
410 PRINT "HOW MANY BUSHEL DO YOU WISH TO FEED YOUR PEOPLE";
411 INPUT Q
412 IF Q<0 THEN 850
418 REM *** TRYING TO USE MORE GRAIN THAN IS IN SILOS?
420 IF Q<=S THEN 430
421 GOSUB 710
422 GOTO 410
430 S=S-Q: C=C+1: PRINT
440 PRINT "HOW MANY ACRES DO YOU WISH TO PLANT WITH SEED";
441 INPUT D: IF D=0 THEN 511
442 IF D<0 THEN 850
444 REM *** TRYING TO PLANT MORE ACRES THAN YOU OWN?
445 IF D<=A THEN 450
446 GOSUB 720
447 GOTO 440
449 REM *** ENOUGH GRAIN FOR SEED?
450 IF INT(D/2)<=S THEN 455
452 GOSUB 710
453 GOTO 440
454 REM *** ENOUGH PEOPLE TO TEND THE CROPS?
455 IF D<10*P THEN 510

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460 PRINT "BUT YOU HAVE ONLY";P;"PEOPLE TO TEND THE FIELDS! NOW THEN,"
470 GOTO 440
510 S=S-INT(D/2)
511 GOSUB 800
512 REM *** A BOUNTIFUL HARVEST!
515 Y=C: H=D*Y: E=0
521 GOSUB 800
522 IF INT(C/2)<>C/2 THEN 530
523 REM *** RATS ARE RUNNING WILD!!
525 E=INT(S/C)
530 S=S-E+H
531 GOSUB 800
532 REM *** LET'S HAVE SOME BABIES
533 I=INT(C*(20*A+S)/P/100+1)
539 REM *** HOW MANY PEOPLE HAD FULL TUMMIES?
540 C=INT(Q/20)
541 REM *** HORROR, A 15% CHANCE OF PLAGUE
542 D=INT(10*(2*RND(1)-.3))
550 IF P<C THEN 210
551 REM *** STARVE ENOUGH FOR IMPEACHMENT?
552 D=P-C: IF D>.45*P THEN 560
553 P1=((Z-1)*P1+D+100/P)/Z
555 P=C: D1=D+D: GOTO 215
560 PRINT: PRINT "YOU STARVED";D;"PEOPLE IN ONE YEAR!!!"
565 PRINT "DUE TO THIS EXTREME MISMANAGEMENT YOU HAVE NOT ONLY"
566 PRINT "BEEN IMPEACHED AND THROWN OUT OF OFFICE BUT YOU HAVE"
567 PRINT "ALSO BEEN DECLARED NATIONAL FINK!!!!": GOTO 990
710 PRINT "HAMURABI: THINK AGAIN. YOU HAVE ONLY"
711 PRINT S;"BUSHEL OF GRAIN. NOW THEN,"
712 RETURN
720 PRINT "HAMURABI: THINK AGAIN. YOU OWN ONLY";A;"ACRES. NOW THEN,"
730 RETURN
800 C=INT(RND(1)*5)+1
801 RETURN
850 PRINT: PRINT "HAMURABI: I CANNOT DO WHAT YOU WISH."
855 PRINT "GET YOURSELF ANOTHER STEWARD!!!!!"
857 GOTO 990
860 PRINT "IN YOUR 10-YEAR TERM OF OFFICE,":P1;"PERCENT OF THE"
862 PRINT "POPULATION STARVED PER YEAR ON THE AVERAGE, I.E. A TOTAL OF"
865 PRINT D1;"PEOPLE DIED!!": L=A/P
870 PRINT "YOU STARTED WITH 10 ACRES PER PERSON AND ENDED WITH"
875 PRINT L;"ACRES PER PERSON.": PRINT
880 IF P1>33 THEN 565
885 IF L<7 THEN 565
890 IF P1>10 THEN 940
892 IF L<9 THEN 940
895 IF IF P1>3 THEN 960
896 IF L<10 THEN 960
900 PRINT "A FANTASTIC PERFORMANCE!!! CHARLEMAGNE, DISRAELI, AND"
905 PRINT "JEFFERSON COMBINED COULD NOT HAVE DONE BETTER!":GOTO 990
940 PRINT "YOUR HEAVY-HANDED PERFORMANCE SNACKS OF NERO AND IVAN IV."
945 PRINT "THE PEOPLE (REMAINING) FIND YOU AN UNPLEASANT RULER, AND,"
950 PRINT "FRANKLY, HATE YOUR GUTS!!":GOTO 990
960 PRINT "YOUR PERFORMANCE COULD HAVE BEEN SOMEWHAT BETTER, BUT"
965 PRINT "REALLY WASN'T TOO BAD AT ALL. ";INT(P*.8*RND(1));"PEOPLE"
970 PRINT "DEARLY LIKE TO SEE YOU ASSASSINATED BUT WE ALL HAVE OUR"
975 PRINT "TRIVIAL PROBLEMS."
990 PRINT: FOR N=1 TO 10: PRINT CHR$(7);: NEXT N
995 PRINT "SO LONG FOR NOW.": PRINT
999 END

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