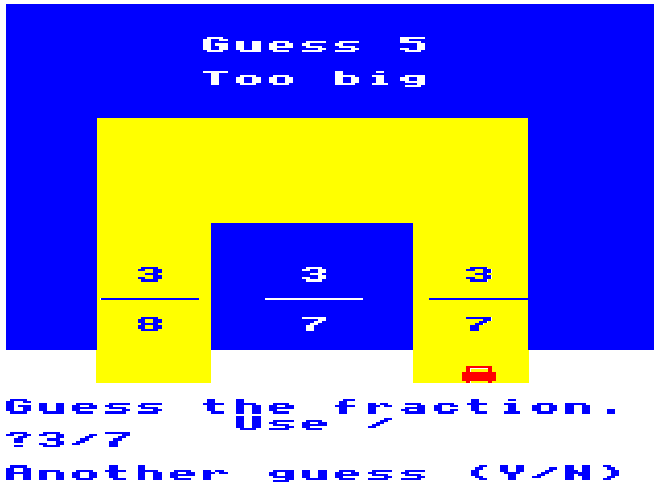


# FRACTION CAR CHASE



We might have named this program 'Duel' after the film of the same name as, like the hero of the film, you are being chased by a juggernaut driver.

As you turn right, the juggernaut turns right; turn left and it still follows you.

Coming up in the near distance is an archway. You must escape through the arch before the lumbering truck rolls over you.

Your only answer is to work out how far across the road the centre of the arch is. Guess wrongly and you hit the arch damaging your. Too many wrong guesses and your car will be immobilised leaving you the defenceless victim of the fast approaching juggernaut.

## How to play

The computer will think of a number whose numerator (top half) and denominator (bottom half) are both ten or less. You must guess the correct fraction and enter it in using the / symbol (eg 2/3) and RETURN. If your guess is too big, or small, you will be told. The guess closest to the correct answer, will be displayed on the arch. The lower guess will be shown on the left hand pillar and the higher guess, closest to the correct answer, will be shown on the right hand pillar.

If your answer is displayed on the arch then you know that you are almost correct. You have nine lives.

This is more difficult than it sounds, after all do you know which is the larger,  $\frac{3}{8}$  or  $\frac{4}{9}$ ? You will be amazed at what you find out about fractions. A hint is that to make a fraction bigger, increase its numerator (top half) or reduce its denominator (bottom half) or both. Do the opposite to make a fraction smaller.

## Programming hints

To make the game easier, reduce the range of fractions allowed. This is done by reducing the tens in line 230. To make it more difficult you may increase these numbers to maximum values of 99 each.

If you want to allow more guesses, increase the 9 in line 280.

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10 REM FRACTION CAR CHASE
20 REM COPYRIGHT (C) G.LUDINSKI 1983
30 MODE 5
40 VDU 19,0,4,0,0,0
50 CLS
60 GOTO 130

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70 DEF FNB(N$)
80 TF=0
90 FOR L=0 TO 7
100 TF=TF+(2^L)*VAL(MID$(N$,8-L,1))
110 NEXT L
120 =TF
130 VDU 23,224,FNB("011111110"),FNB("01
000010"),FNB("01000010"),255,255,255,255
,FNB("01000010")
140 COLOUR128:CLS:MAX=1:MIN=0:CA$=CHR$(
(128):M1$="0":M2$="":X1$="1":X2$=""
150 REM
160 REM DRAW ARCH
170 REM
180 GCOL 0,3:PROC_BLOCK(0,0,1280,350)
190 GCOL 0,2:PROC_BLOCK(190,290,210,51
0):PROC_BLOCK(800,290,220,510):PROC_BLOC
K(190,600,830,200)
200 REM
210 REM THINK OF FRACTION
220 REM
230 F=RND(10):G=RND(10)
240 PROC_REDUCE
250 IF F=G OR F/G=INT(F/G) OR G/F=INT(
G/F) THEN 230
260 IF G<F THEN H=G:G=F:F=H
270 COLOUR131:COLOUR1:PRINTTAB(9,23)CA
$
280 FORT=1TO9
290 COLOUR131:COLOUR0:PRINTTAB(0,24)
STRING$(120,"");
300 PRINTTAB(0,24)"Guess the fractio
n.
310 INPUTI$:IF I$="" THEN 310
320 REM
330 REM CHECK ENTRY
340 REM
350 FORI=1TOLEN(I$)
360 C$=MID$(I$,I,1)
370 IF(C$<"0" OR C$>"9") AND C$<>"
/" THEN GOTO 400
380 IF C$="/" AND I>1 AND LEN(I$)>
2 THEN NM$=LEFT$(I$,I-1):DN$=RIGHT$(I$,L
EN(I$)-I):GOTO410
390 NEXTI
400 VDU11:SOUND1,-15,50,10:GOTO310
410 IFLEN(NM$)>2 OR LEN(DN$)>2 THEN
GOTO 400
420 REM
430 REM DISPLAY FRACTION BETWEEN ARCH
440 REM
450 COLOUR128:COLOUR3:PRINTTAB(9,16)
;"":PRINTTAB(9,16);NM$:PRINTTAB(8,17
);"---":PRINTTAB(9,19);"":PRINTTAB(9
,19);DN$
460 COLOUR128:COLOUR3:PRINTTAB(6,2)"
Guess ";T
470 IF NM$=STR$(F) AND DN$=STR$(G) T
HEN PRINT""That's right":PROC_CAR("
",CA$,""):GOTO600
480 IF NM$="0" OR DN$="0" THEN 400
490 VI=EVAL(I$)
500 COLOUR131:PRINTTAB(9,23)"":COLO
UR128
510 IF VI < F/G THEN PRINTTAB(6,4)"T
oo small":PROC_CAR(CA$,"","")
520 IF VI > F/G THEN PRINTTAB(6,4)"T
oo big":PROC_CAR("","","",CA$)
530 IF VI < MAX AND VI > F/G THEN MA
X=VI:X1$=NM$:X2$=DN$

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```

540 IF VI MIN AND VI < F/G THEN MIN=
VI:M1$=NM$:M2$=DN$
550 COLOUR0:COLOUR130:PRINTTAB(4,16)
" TAB(4,16)M1$
560 IF M2$<>" " THEN PRINTTAB(3,17)"
---TAB(4,19)" "TAB(4,19)M2$
570 PRINTTAB(14,16)" "TAB(14,16)X1$
580 IF X2$<>" " THEN PRINTTAB(13,17)
"---TAB(14,19)" "TAB(14,19)X2$
590 GOTO610
600 COLOUR0:COLOUR131:PRINTTAB(0,24)
;STRING$(120," "):PRINTTAB(0,24)"You esc
aped - Phew!":GOTO700
610 COLOUR131:PRINTTAB(0,28)"Another
guess (Y/N) ";
620 INPUT R$
630 IF R$="N" THEN GOTO 710
640 NEXTT
650 REM
660 REM END OF GUESSES
670 REM
680 COLOUR0:COLOUR131:PRINTTAB(0,24);S
TRING$(120," "):PRINTTAB(0,24)"The judge
rnaut closes in"
690 PRINT'"The fraction is " ;F;" / "
;G
700 OSCLI("FX 21"):PRINT'"More (Y/N) ";
710 INPUT R$:IF R$ <> "N" THEN GOTO 14
0
720 GOTO 850
730 STOP
740 DEFPROC_BLOCK(X,Y,W,H)
750 MOVEX,Y:MOVEX+W,Y
760 PLOT 85,X,Y+H
770 PLOT 85,X+W,Y+H
780 ENDPROC
790 DEFPROC_CAR(P1$,P2$,P3$)
800 COLOUR130:COLOUR1:PRINTTAB(4,22)P1
$;TAB(14,22)P3$;;COLOUR131:PRINTTAB(9,22
)P2$
810 ENDPROC
820 DEFPROC_REDUCE
830 FORI=2TO9
840 IF F/I = INT(F/I) AND G/I = INT(
G/I) THEN F=F/I:G=G/I:GOTO820
850 NEXTI
860 ENDPROC
870 END

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