

**COMPUTER
CLASSICS**

contronics

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VIC - 20



DIVITUTE
LONG DIVISION TUTOR

TO LOAD & USE YOUR VIC CASSETTE TAPE

1. Make sure your computer, tape cassette recorder and TV display are connected properly and powered on. The last message displayed by the VIC should be the word READY.
2. Place the tape cassette in the recorder with the label side up. (Programs are always recorded twice on one side of the tape).
3. To move to the beginning of the tape, press the REWIND switch on the tape recorder. When rewinding stops, press the recorder's STOP switch.
4. On the VIC's keyboard, type in LOAD and press the RETURN key.
Note: If you have different programs on the same cassette, type LOAD "name of program" then press the RETURN key.
5. Your screen will display PRESS PLAY ON TAPE. After you press the recorder's PLAY switch, the words OK and SEARCHING are displayed.
6. When VIC finds the program, it displays the word FOUND, followed by the name of the program, then tells you it's LOADING.
7. When you see READY, press the STOP switch on the tape recorder, and on the VIC, type in RUN and press the RETURN key.
8. See the specific instructions for your program on how to proceed further.

IF YOU TAPE DOES NOT LOAD, FIRST REPEAT STEPS 4 THRU 7 ABOVE.
IF THE PROGRAM STILL FAILS TO LOAD, TURN POWER OFF, THEN
POWER ON AND REPEAT STEPS 3 THRU 7.
IF PROBLEMS STILL PERSIST REFER TO YOUR MANUAL AND/OR YOUR
DEALER.

OPERATING INSTRUCTIONS

1. System Requirements 6K RAM

2. Start Up

Simply type "RUN", press the "RETURN" key and then press any other key.

3. Program Options

- (a) Auto Level (Y/N)?

If you type "Y" in response to this prompt the program adds 1 point for each correct answer and subtracts 1 point for each incorrect answer. When a score of 5 is reached at any level the program will automatically increase the level of difficulty by 1 step.

If the score goes below zero then the program will decrease the level of difficulty by one step and set the score at 3. To get back to the higher level, at least 2 questions must be answered correctly.

- (b) Help Window (Y/N)?

If you type "Y" in response to this prompt, "PRESS N FOR HELP" will be displayed at the top of the screen while the exercise is being done. If the "N" key is pressed while this prompt is on the screen, a window containing information about the current arithmetic operation will be displayed to the left of the working area. To return to the exercise press any key.

4. Student Operation

The program is intended for student operation from this point. The following prompt will appear on the screen :

TYPE YOUR NAME AND PRESS THE RETURN KEY

The student should type in his/her name followed by the "RETURN" key.

5. Level of Difficulty

The screen will now contain the following display -

THERE ARE 4 LEVELS

1. NOVICE
2. AMATEUR
3. PROFESSIONAL
4. CHAMPION

HOW DO YOU RATE ON LONG DIVISION
FRED?

The student may respond with either "1", "2", "3" or "4". Level 1 gives a 1 digit multiplier and a 2 digit multiplicand, while level 2 gives a 2 digit multiplier and a 3 digit multiplicand, and so on.

5. Doing the Exercise

The process of long division consists of 4 stages

- (i) division estimation
- (ii) Multiplication
- (iii) subtraction for remainder, and
- (iv) bringing down the next digit.

The student needs only to press a numeric key to enter a number when the flashing cursor (?) appears, but RETURN is required to indicate the conclusion of stages (ii) and (iii). At each stage the numbers involved in the operation are highlighted and an appropriate prompt is given.

(a) Erasing Errors

If the student makes a mistake and wishes to go back and correct it, the use of one of the "I", "J", "K" or "M" keys will cause the cursor to proceed through the process in reverse. Which of the above keys to use depends on the direction in which the cursor is to go. The program will respond only to keys which specify legal movements of the cursor at any particular stage of the process. The directions are as follows :

I
J K

M

After the correction has been made the student should simply proceed with the exercise from that

(b) Correction

When the student has completed the exercise the prompt "PRESS C FOR CORRECTION" will appear at the top of the screen.

When the "C" key is pressed the program will check through the whole process just completed by the student. If it comes across any mistakes it will stop and the error will flash while the correct value will be displayed in a window on the left of the screen. Simply press any key to continue the process.

(c) Starting another exercise

After the exercise has been corrected the prompt "ANOTHER ONE FRED?" will be displayed at the top of the screen. For another exercise press the "Y" key. To finish press the "N" key.

7. Ending the program

If "N" is pressed after the exercise has been corrected the student's score and level will be displayed. After a while the screen will change to the final page

SPACE	PRESS FOR NEXT STUDENT
SHIFT Q	TO END

If the "SPACE" bar is pressed the program returns to the introductory prompt (see Section 3) ready for the next student to begin.

If the "SHIFT" key is held down while the "Q" key is pressed then the screen will clear and the program will end.

8. Crash and recovery

The most common cause of a program crash will be accidental depression of the RUN key. If this occurs

STOP

simply press the RUN key and the RESTORE key

STOP

simultaneously and then follow the start up procedure in Section 2.