*EXPLORATIONS*

# Appendix

## Masters for Teachers

This section includes duplication masters and transparency masters.

## Contents

# TI-82 Keystrokes for Entering the
# SIXPENS Calculator Program

| Program Code | Keystrokes |
|---|---|
| `PROGRAM:SIXPENS` | [PRGM] [▶] [▶] [ENTER] SIXPENS (all alphabetic characters) [ENTER] |
| `:ClrHome` | [PRGM] [▶] 8 [ENTER] |
| `:ClrList L1` | [STAT] 4 [2nd] [L1] [ENTER] |
| `:Input`<br>`"TRIALS?(≤99)",N` | [PRGM] [▶] 1 [2nd] [A-LOCK] "TRIALS? [ALPHA] [(] [2nd] [TEST] 6 99 [)] [ALPHA] ",<br>[ALPHA] N [ENTER] |
| `:Disp "RESULTS:"` | [PRGM] [▶] 3 [2nd] [A-LOCK] "RESULTS:" [ENTER] |
| `:For(C,1,N)` | [PRGM] 4 [ALPHA] C [,] 1 [,] [ALPHA] N [)] [ENTER] |
| `:0→B` | Ø [STO▶] [ALPHA] B [ENTER] |
| `:0→R:0→T:0→Y` | Ø [STO▶] [ALPHA] R [2nd] [:] Ø [STO▶] [ALPHA] T [2nd] [:] Ø [STO▶] [ALPHA] Y [ENTER] |
| `:0→L:0→G:0→V` | Ø [STO▶] [ALPHA] L [2nd] [:] Ø [STO▶] [ALPHA] G [2nd] [:] Ø [STO▶] [ALPHA] V [ENTER] |
| `:Lbl 1` | [PRGM] 9 1 [ENTER] |
| `:1+B→B` | 1 [+] [ALPHA] B [STO▶] [ALPHA] B [ENTER] |
| `:iPart 6rand+1→P` | [MATH] [▶] 2 6 [MATH] [◀] 1 [+] 1 [STO▶] [ALPHA] P [ENTER] |
| `:If P=1:R+1→R` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 1 [2nd] [:] [ALPHA] R [+] 1 [STO▶] [ALPHA] R [ENTER] |
| `:If P=2:T+1→T` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 2 [2nd] [:] [ALPHA] T [+] 1 [STO▶] [ALPHA] T [ENTER] |
| `:If P=3:Y+1→Y` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 3 [2nd] [:] [ALPHA] Y [+] 1 [STO▶] [ALPHA] Y [ENTER] |
| `:If P=4:L+1→L` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 4 [2nd] [:] [ALPHA] L [+] 1 [STO▶] [ALPHA] L [ENTER] |
| `:If P=5:G+1→G` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 5 [2nd] [:] [ALPHA] G [+] 1 [STO▶] [ALPHA] G [ENTER] |
| `:If P=6:V+1→V` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 6 [2nd] [:] [ALPHA] V [+] 1 [STO▶] [ALPHA] V [ENTER] |
| `:If RTYLGV=0:Goto 1` | [PRGM] 1 [2nd] [A-LOCK] RTYLGV [2nd] [TEST] 1 Ø [2nd] [:] [PRGM] Ø 1 [ENTER] |
| `:B→L1(C)` | [ALPHA] B [STO▶] [2nd] [L1] [(] [ALPHA] C [)] [ENTER] |
| `:Disp B` | [PRGM] [▶] 3 [ALPHA] B [ENTER] |
| `:End` | [PRGM] 7    (Press [2nd] [QUIT] to return to the home screen.) |

# TI-83 Keystrokes for Entering the
# SIXPENS Calculator Program

| Program Code | Keystrokes |
|---|---|
| `PROGRAM:SIXPENS` | [PRGM] [▶] [▶] [ENTER] SIXPENS (all alphabetic characters) [ENTER] |
| `:ClrHome` | [PRGM] [▶] 8 [ENTER] |
| `:ClrList L1` | [STAT] 4 [2nd] [L1] [ENTER] |
| `:Input "TRIALS?(≤99)",N` | [PRGM] [▶] 1 [2nd] [A-LOCK] "TRIALS? [ALPHA] [(] [2nd] [TEST] 6 99 [)] [ALPHA] ", [ALPHA] N [ENTER] |
| `:Disp "RESULTS:"` | [PRGM] [▶] 3 [2nd] [A-LOCK] "RESULTS:" [ENTER] |
| `:For(C,1,N)` | [PRGM] 4 [ALPHA] C [,] 1 [,] [ALPHA] N [)] [ENTER] |
| `:0➔B` | 0 [STO▶] [ALPHA] B [ENTER] |
| `:0➔R:0➔T:0➔Y` | 0 [STO▶] [ALPHA] R [ALPHA] [:] 0 [STO▶] [ALPHA] T [ALPHA] [:] 0 [STO▶] [ALPHA] Y [ENTER] |
| `:0➔L:0➔G:0➔V` | 0 [STO▶] [ALPHA] L [ALPHA] [:] 0 [STO▶] [ALPHA] G [ALPHA] [:] 0 [STO▶] [ALPHA] V [ENTER] |
| `:Lbl 1` | [PRGM] 9 1 [ENTER] |
| `:1+B➔B` | 1 [+] [ALPHA] B [STO▶] [ALPHA] B [ENTER] |
| `:iPart(6rand)+1➔P` | [MATH] [▶] 3 6 [MATH] [◀] 1 [)] [+] 1 [STO▶] [ALPHA] P [ENTER] |
| `:If P=1:R+1➔R` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 1 [ALPHA] [:] [ALPHA] R [+] 1 [STO▶] [ALPHA] R [ENTER] |
| `:If P=2:T+1➔T` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 2 [ALPHA] [:] [ALPHA] T [+] 1 [STO▶] [ALPHA] T [ENTER] |
| `:If P=3:Y+1➔Y` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 3 [ALPHA] [:] [ALPHA] Y [+] 1 [STO▶] [ALPHA] Y [ENTER] |
| `:If P=4:L+1➔L` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 4 [ALPHA] [:] [ALPHA] L [+] 1 [STO▶] [ALPHA] L [ENTER] |
| `:If P=5:G+1➔G` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 5 [ALPHA] [:] [ALPHA] G [+] 1 [STO▶] [ALPHA] G [ENTER] |
| `:If P=6:V+1➔V` | [PRGM] 1 [ALPHA] P [2nd] [TEST] 1 6 [ALPHA] [:] [ALPHA] V [+] 1 [STO▶] [ALPHA] V [ENTER] |
| `:If RTYLGV=0:Goto 1` | [PRGM] 1 [2nd] [A-LOCK] RTYLGV [2nd] [TEST] 1 0 [ALPHA] [:] [PRGM] 0 1 [ENTER] |
| `:B➔L1(C)` | [ALPHA] B [STO▶] [2nd] [L1] [(] [ALPHA] C [)] [ENTER] |
| `:Disp B` | [PRGM] [▶] 3 [ALPHA] B [ENTER] |
| `:End` | [PRGM] 7     (Press [2nd] [QUIT] to return to the home screen.) |

# The Six Pens Simulation

Total Number **N** of Customers: _____

Customer (**C**) Number: _____

| Pen Color<br>**P** | Red<br>**R** (1) | Tan<br>**T** (2) | Yellow<br>**Y** (3) | Blue<br>**L** (4) | Green<br>**G** (5) | Violet<br>**V** (6) |
|---|---|---|---|---|---|---|
| Tally | | | | | | |

Total boxes **B** purchased by this customer: _____

List of Results: L1 (C) holds value of B for Customer C

| L1 (1) | L1 (2) | L1 (3) | L1 (4) | … |
|---|---|---|---|---|
| | | | | … |

# Procedures for Linking and Program Downloading

**Note: This procedure works only for two calculators that are the same model (two TI-82s or two TI-83s, for example).**

**Connect the link cable:**

- The **LINK** port is located at the center of the bottom edge of the calculator. Insert either end of the link cable into the port ***very firmly***.

- Repeat with the other calculator.

**Prepare the receiving unit:**

- Press 2nd [LINK] and use the arrow keys to highlight **RECEIVE**.
- Press ENTER. The message "**WAITING**" is displayed.

**Prepare the sending unit:**

- Press 2nd [LINK] to display the **SEND** menu.

- Press **2** to select **SelectAll-** and to display the **Select** screen.

- Press ▼ (the down arrow key) until the cursor is on the line containing the name of the program you wish to transmit.

- Press ENTER. A square dot ■ will appear indicating that the program is selected to send. (This will be easier to see if you press ▼.)

**Transmit the program:**

- Press ▶ to highlight the word **TRANSMIT** at the top of the display.

- Press ENTER to begin transmission.

  Information on the item(s) transmitted will be displayed.

If the procedure is unsuccessful, check that the cable connections are *tight* on both calculators and repeat the process.