Checklist for Checking Calculations

|  |  |  |
| --- | --- | --- |
| Done | Check Time and Savings Amounts and for Inconsistencies |  |
|  | Default numbers (i.e., Loaned $2,000, APR 4.53%, and $20.76 minimum) |  |
|  | Change Loaned (e.g., to $7,000) |  |
|  | Change APR (e.g., to 5.00%, especially to 0%, and back) |  |
|  | Change Pay Monthly, by increasing it (e.g., to $300, enough for increment size to change from ↑$50 to, say, ↑$100) |  |
|  | Change Pay Monthly, by decreasing it (e.g., to $50, enough for decrement size to change from ↓$50 to, say, ↓$100) |  |
|  | Change Pay Monthly to absolute minimum, and change parameters (i.e., Loaned, APR, and Pay Monthly) |  |
|  | Change parameters, by increasing and decreasing them, focusing on change in savings |  |
| Done | Edit the App, and Check Time and Savings Amounts and for Inconsistencies |  |
|  | Edit Loaned (e.g., change to $6,140, $2,500 minimum, $15,500 maximum, 50 increments) |  |
|  | Edit APR (e.g., change to 4.47%, especially to 0%, and back) |  |
|  | Edit Pay Monthly (e.g., change to $43.67) |  |
|  | Change Pay Monthly, by increasing it again (e.g., to $300, enough for increment size to change from ↑$50 to, say, ↑$100) |  |
|  | Change Pay Monthly, by decreasing it again (e.g., to $50, enough for decrement size to change from ↓$50 to, say, ↓$100) |  |
|  | Edit Pay Monthly increment sizes and timers (e.g., change to initially ↑$5, at 5s ↑$10 and at 10s ↑$15), and test them |  |
|  | Edit Pay Monthly decrement sizes and timers (e.g., change to initially ↓$1, at 1s ↓$2 and at 15s ↓$12), and test them |  |
|  | Change Pay Monthly to absolute minimum, and change parameters (i.e., Loaned, APR, and Pay Monthly) |  |
| Done | Check Pay Monthly, Monthly Balance, Time and Savings Amounts and for Inconsistencies |  |
|  | Pay less interest (e.g., 75%) |  |
|  | Compound the interest |  |
|  | For compound interest, pay less of it (e.g., 25%) |  |
|  | Minimize the Pay Monthly amount |  |
|  | Pay more interest (e.g., 33%) |  |
|  | Turn off compound interest, minimize the Pay Monthly amount |  |
|  | Check “Breakdown of Pay” by paying less interest, compounding the interest or minimizing the Pay Monthly amount |  |
| Done | Edit the App, and Check Pay Monthly, Monthly Balance, Time and Savings Amounts |  |
|  | Edit the minimum (i.e., change to 10-year minimum), and change parameters |  |
|  | Set the amount to 10-year minimum, and change parameters |  |
|  | Pay less interest (e.g., 60%) |  |
|  | Compound the interest |  |
|  | For compound interest, pay less of it (e.g., 32%) |  |
|  | Minimize the Pay Monthly amount |  |
|  | Pay more interest (e.g., 42%) |  |
|  | Turn off compound interest, minimize the Pay Monthly amount |  |
|  | Revert to absolute minimum, and, if possible, set Pay Monthly equal to Loaned and check pay extra amount |  |
|  | For absolute minimum and, if possible, Pay Monthly equal to Loaned, check pay extra amount by paying less interest or compounding the interest |  |
|  | For absolute minimum and Pay Monthly exceeding Loaned, check refunded amount, and then check refunded amount for paying less interest or compounding the interest |  |
| Done | Attempt to Break the App |  |
|  | Edit parameters in unusual ways (e.g., amounts to $0 or negative numbers) |  |
|  | Press or move objects in unusual ways (e.g., press twice on APR down arrow, or move Loaned slider’s thumb erratically) |  |
|  |  |  |