Limited Calculators

Math Concepts: +, –, x, / with small numbers
Materials: Paper and pencil - optional
Players: 1+

Play: The premise is that you have a calculator that is badly broken and you are challenged to produce some result on the calculator. This is easy to play orally whenever you have a spare moment.

Here are some examples to get you started..

Examples:

1) Suppose you had a calculator with +, -, x, and /, but only one working number key, the 4. Could you get the result 21? If so, what is the fewest number of steps you would need? Suppose you can use 4 at most four times - which numbers can you produce? Suppose you had to use the 4 exactly four times. Play around with having other single keys and creating other results.
2) Suppose your calculator can only add 4's and 7's. Which numbers can you produce? Suppose it had 4's and 7's, but now it can add and subtract. Which numbers can you produce?.
3) Suppose you only had a 1 key and can only add or double. For example, 2 x (2 x 1) + 1 is 5. Which numbers can you create?
4) Suppose you only had a 1 kay and can only add, subtract, or triple. For example, 3 x 3 x 1 - 3 x 1 + 1 is 5. Which numbers can you create?