

Problem-Solving Strategy:

Solve a Simpler Problem

1. Solve this riddle: What is the greatest proper fraction that has 7 digits, and each digit is different? (Hint: Find the answers for 3 and 5 digits first.)

UNDERSTAND

What is a proper fraction?

If a proper fraction has 3 digits, how many will be in the numerator?

PLAN

How can I follow the hint given in the problem?

SOLVE

What is the greatest proper fraction that has 3 different digits?

What is the greatest proper fraction that has 5 different digits?

What pattern do I see in my answers?

LOOK BACK

What is my answer to the original question?

How can I check to make sure I have the greatest possible fraction?

2. Solve this riddle: What is the greatest proper fraction that has 8 digits, and each digit is different?
