Decide whether the argument is an example of inductive or deductive reasoning.

1) All U.S. Presidents have come from the original 48 states. Therefore, no U.S. President can be from Alaska.

Inductive Reasoning since a general conjecture is made based on specific observations.

Use the method of Gauss to find the sum.

2) \(1 + 2 + 3 + \ldots + 400\)

\[
\text{sum} = (\text{sum of pairs})(\text{number of pairs}) = (1 + 400) \left( \frac{400}{2} \right) = 401(200) = 80,200
\]

Solve the problem.

3) When 10 gallons of gasoline are put into a car’s tank, the indicator goes from \(\frac{1}{8}\) of a tank to \(\frac{3}{4}\).

What is the total capacity of the gasoline tank?

\[
\frac{10 \text{ gallons}}{\left( \frac{3}{4} - \frac{1}{8} \right) \text{ tank}} = \frac{10 \text{ gallons}}{\left( \frac{6}{8} - \frac{1}{8} \right) \text{ tank}} = \frac{10 \text{ gallons}}{\frac{5}{8} \text{ tank}} = 0 \left( \frac{8}{5} \right) \text{ gallons} = \frac{16}{5} \text{ gallons} = \frac{16}{5} \text{ tank}
\]

Find \(n(A)\) for the set.

4) \(A = \{-7, -6, -5, \ldots, 0\}\)

\(n(A) = 8\) since there are 8 elements in the set.