More on loss of significance

Avoid adding a small number to a large number

Define a large number and a small number

```
large_number = 1e16;   % A large number
small_number = 1e-8;   % A small number

% Add the small number to the large number
result = large_number + small_number;

% Display the results
disp('Large number:');
disp(large_number);

disp('Small number:');
disp(small_number);

disp('Result of adding the small number to the large number:');
disp(result);

% Check if the result is exactly the same as the large number
if result == large_number
    disp('The small number was lost due to floating-point precision.');
else
    disp('The small number was preserved.');
end
```

```
Large number:
   1.0000e+16

Small number:
   1.0000e-08

Result of adding the small number to the large number:
   1.0000e+16

The small number was lost due to floating-point precision.
```

Published with MATLAB® R2024b