

The solutions to the first two problems will be your first pdf.

1. Solve  $\frac{1}{x} - \frac{x}{x+2} = \frac{2}{3}$ . Use the notation discussed in lecture 0.
2. Simplify  $\frac{(x+h)^2 - x^2}{h}$ . Use the notation discussed in lecture 0.

The solution to the CAS problem will be your second pdf.

3. CAS problem: use a CAS device to find  $\lim_{x \rightarrow 0} x \sin(1/x)$ . Submit a printed copy of the device's solution and your corresponding commands. If using Matlab, remember the " \* " when writing  $x * \sin(1/x)$  because the program needs to see the multiplication operation. See the Canvas "Matlab in Virtual Desktop" video for more guidance.

Merge the pdfs in order and submit to Canvas. The merging and submission is worth two points.

Answers:

1.  $x = 1$  or  $\frac{-6}{5}$
2.  $2x + h$