

## 7590 HW 1

Duncan Wilkie

?

### 1a

By the definition of the  $L^2$  inner product and  $A$ ,

$$\langle Af|g\rangle = \langle f|h\rangle \Leftrightarrow \int_0^1 f''(x)g(x)dx = \int_0^1 f(x)h(x)dx$$