## D116 Quiz 5

## Name:

$\qquad$

1. A fair coin is flipped 2 times. A random variable $X$ is defined as the number of heads minus the number of tails. Find the density function of $X$ by completing the following table.

| Event | Value of $X$ | Probability |
| :--- | :---: | :---: |
| No heads | -2 | $C(2,0)(1 / 2)^{0}(1 / 2)^{2}=1 / 4$ |
| One head | 0 | $C(2,1)(1 / 2)^{1}(1 / 2)^{1}=1 / 2$ |
| Two heads | 2 | $C(2,2)(1 / 2)^{2}(1 / 2)^{0}=1 / 4$ |

End of Quiz $\diamond$

