

Please PRINT your name _____

No calculators, cell phones, computers, notes, etc.

Make your work correct, complete and coherent.

Please take a picture of your quiz (for your records) just before you turn the quiz in. I will e-mail your grade and my comments to you. I will keep your quiz.

The quiz is worth 5 points. The solutions will be posted on my website later today.

Quiz 2, January 25, 2023

Is the group of complex numbers $\{1, -1, i, -i\}$, under multiplication, a Klein 4-group?

Answer: The above group (which we usually call U_4) is NOT a Klein four group. In a Klein 4 group every element squares to the identity element. The identity element of U_4 is 1. The elements i and $-i$ both square to -1 , which is not the identity element.

The group U_4 is a cyclic group generated by either i or $-i$.