

## QUIZ 1

*Instructions: Please write your name at the top of the page. Show all your work and explain your reasoning unless otherwise indicated.*

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(1) (5 points). Explicitly describe the subset  $\mathbb{V}(x^2 + 4)$  in  $\text{Spec}(\mathbb{C}[x])$ .

(2) (5 points). Explicitly describe the subset  $\mathbb{V}(\langle 90, 120 \rangle)$  in  $\text{Spec}(\mathbb{Z})$ .