

Name _____ Fields and Rings, Quiz 3

1) Find the simplest way to express the ideal $\langle x + 1, x^2 \rangle \subseteq \mathbb{Q}[x]$.

2) Let p and q be prime numbers in \mathbb{Z} . Prove that $\langle p \rangle \cap \langle q \rangle = \langle pq \rangle$.