

## Math 8 - Quiz 4

Name:

Section:

**Problem 1.** Let  $X$ ,  $Y$ , and  $Z$  be sets. Show that if  $X \subset Y$  and  $Y \subset Z$ , then  $X \subset Z$ .

**Problem 2.** Let  $A$  and  $B$  be sets and suppose that  $A \subset B$ . Prove that  $\mathcal{P}(A) \subset \mathcal{P}(B)$ .