

Write your name and code on the back.

## Show your work!

1. { 8 points } **Prove that there are no solutions in positive integers  $x$  and  $y$  to the equation**

$$x^3 + y^3 = 19$$

2. { 2 points } **Prove or disprove that there are no solutions in integers  $x$  and  $y$  to the equation**

$$x^3 + y^3 = 19$$