Name: Date: Class:

C++ Code for Arduino Setup Fill in the Blank

```
// C++ Prosthetic Hand Code
// Fill in the blank worksheet

#include <Servo.h> // Include the Servo library

Servo myservo; // Create servo object

int servopin = ___; // Pin for servo

int buttonpin = ___; // Pin for button

int potpin = ___; // Pin for potentiometer

int buttonState = ___; // Button state

int force = ___; // Force sensor reading

int angle = ___; // Servo angle



void setup() {

      myservo._________(servopin); // Attach servo

      pinMode(buttonpin, __________); // Button with pull-up

      pinMode(___, INPUT); // Force sensor input

      pinMode(___, OUTPUT); // Output for PWM based on force

      Serial.begin(_____); // Start serial communication

}
```

Name: **Date:** **Class:**

```
void loop() {
buttonState = _____(buttonpin); // Read button
  if (buttonState == LOW) {
    int potval = _____(potpin); // Read potentiometer
    angle = map(potval, 0, 1023, _, ); // Map pot to angle
    myservo.(angle); // Move servo }

    else {
      angle = ___; // Default angle
      myservo.write(angle); // Move servo }

force = _____(A1); // Read force
analogWrite(6, map(force, 0, 1023, 0, ___)); // Write PWM
Serial.(angle); // Print angle
Serial.print(","); // Separator
Serial.____(force); // Print force
delay(); // Wait 1 second
}
```