

No notes or calculators. Show all work.

1. (3 points) Solve the equation for x .

$$3 = 27^{2x-1}$$

2. (4 points) Solve the equation for x .

$$7^{x^2-x} = 1$$

3. (3 points) Solve the equation for x .

$$\log_3(2x + 9) = 2$$