

Directions: Work individually in pencil until time is called. Then discuss with your nearest neighbor and make corrections in pen. Each person should show their work and turn in their paper. Any work done on the calculator should be indicated with a quick sketch or a description of the process used.

A certain state uses the following information to determine income taxes.

- Incomes between \$0 and \$50,000 are assessed a 9% tax
- Incomes over \$50,000 are assessed a 9% tax on the first \$50,000 and a 12% tax on the income over \$50,000

Use this information to answer the next three questions.

1. Determine a piecewise function that represents the tax in terms of income x .

2. If a person had a salary of \$70,000, how much tax would they owe?