

Algebra 1 Investigative Task 2
Chapter 1

Name _____

Grades 9-12 Enrollment per state:

State	1990	2000	2010
Alabama	194,709	201,358	221,940
Alaska	28,606	38,914	40,114
Arizona	160,807	237,132	319,759
Arkansas	122,781	131,936	136,306
California	1,336,740	1,733,779	1,995,610

You are the head of a company that will be making the graduation tests for high school students in the states shown above (yes, you are evil).

1. If all students in grades 9-12 will be taking the graduation tests, then find the total number of students that will be test in 1990, 2000, and 2010.

2. Assume each grade has an equal number of students. Find how many freshman, sophomore, junior and senior students are present in each state in each year. Fill in the table with your answers:

Students enrolled per grade

Write a sentence explaining how you found the answers.

State	1990	2000	2010
Alabama			
Alaska			
Arizona			
Arkansas			
California			
Total			

3. Graders will take 5 minutes per test to complete the grading process. Find how many hours each state will require in 2010. Graders work 40 hours per week. The grading process cannot last longer than 4 weeks (160 total hours per grader). Fill in the number of graders required for each state. Graders will be paid \$12 per hour.

State	Hours to grade	Graders required	Amount paid to graders
Alabama			
Alaska			
Arizona			
Arkansas			
California			
Total:			

4. In 2010, each test will cost \$4 to make, print, and ship to the schools. The company expects to make \$1,000,000 profit from the testing process. How much does the company have to charge for each test in order to make this profit after expenses (making, printing, shipping, grading)? Show your work/process completely.