Area-Career, Family and Community Connections
Problem-Calculating Grade Point Average

## Standards

SD FACS Standards
FCS Determine skills and knowledge needed to develop a plan for achieving individual, family and career goals

## SD Mathematics Standards

Math 6 N. 3.1
Students are able to use various strategies to solve one-and two-step problems involving positive decimals

## Problem

As you plan for your post-high school education, one factor that can help or hinder your goals is your Grade Point Average (GPA). You will have a GPA for each grading period (such as a semester) and you will have a cumulative GPA (an average of the entire time period you've been in junior high or high school). GPA's are usually given every semester ranging from 0.00 to 4.00. Here's how to figure out GPA's:

1. Find the point value given to each letter (for example, an A is 4 pts., a $B$ is 3 pts., etc.)
2. Add the total point values and the attempted credits.
3. Divide the total point value by the total attempted credits. Carry your answer to three decimal places. This is your grade point average.
4. Each semester, your past GPA is averaged into the next GPA to find what is called a cumulative GPA. Your cumulative GPA is found by adding the all of the grading period GPA's and dividing them by the number of grading periods. For example, Student A has the following grade point averages:

Student A
$1^{\text {st }} 9$ weeks: $\quad 3.166$
$2^{\text {nd }} 9$ weeks: $\quad 3.333$
$3^{\text {rd }} 9$ weeks: $\quad 3.166$
$4^{\text {th }} 9$ weeks: $\quad 2.500$
TOTAL: $\quad 12.165 \div 4$ grading periods $=$ Cumulative GPA: 3.041
5. Use the steps above to calculate the following students' grade point averages and their cumulative GPA:

## Student \#1

| Course | Grade | Point Value | Attempted Credit |
| :---: | :---: | :---: | :---: |
| English I | B | 3 | 1 |
| Algebra I | A | 4 | 1 |
| Geography | B | 3 | 1 |
| FACS | A | 4 | 1 |
| Spanish | B | 3 | 1 |
| Phys. Science | B | 3 | 1 |
| TOTALS: |  | 20 | 6 |

Student \#2

| Course | Grade | Point Value | Attempted Credit |
| :---: | :---: | :---: | :---: |
| English I | B | 3 | 1 |
| Algebra I | A | 4 | 1 |
| Geography | C | 2 | 1 |
| FACS | A | 4 | 1 |
| Spanish | B | 3 | 1 |
| Phys. Science | D | 1 | 1 |
| TOTALS: |  | 17 | 6 |

$$
17 \div 6=2.833 \mathrm{GPA}
$$

Student \#1
$1^{\text {st }} 9$ weeks:
3.333
$2^{\text {nd }} 9$ weeks:
$3^{\text {rd }} 9$ weeks:
3.333
$4^{\text {th }} 9$ weeks:
TOTAL: $\quad 12.998 \div 4=$ Cumulative GPA: 3.250
Student \#2
$1^{\text {st }} 9$ weeks: $\quad 2.833$
$2^{\text {nd }} 9$ weeks: $\quad 3.166$
$3^{\text {rd }} 9$ weeks: $\quad 3.166$
$4^{\text {th }} 9$ weeks: $\quad 3.333$
TOTAL: 12.498 Cumulative GPA: 3.125
6. Is it easy to raise a GPA once you've had a bad 9-week? Can you wait until your junior or senior year to get a good GPA? What is your best strategy for making sure your GPA will allow you to reach your goals?

ANSWERS WILL VARY-should recognize the importance of maintaining good grades from the start of your junior or senior high school experience.

## What will you need?

Problem
Calculators
How will you be evaluated?
Key with correct answers

