(S) 8.12(G) Estimate the cost of a two-year and four-year college education, including family contribution, and devise a periodic savings plan for accumulating the money needed to contribute to the total cost of attendance for at least the first year of college.

## Understand the TEKS

A study from the Federal Reserve Bank of San Francisco found that, on average, the lifetime earnings of college graduates are $\$ 830,000$ greater than those of people who do not have a college degree. If you have only a high-school diploma, most employers will not consider you for a high-paying job. College is therefore a good investment for financial as well as personal reasons. However, a college education can be very expensive.

## Cost of Attendance

Tuition is the money a student must pay in order to attend classes. Colleges usually require certain fees in addition to tuition, so the basic cost of going to

## Words to Know

tuition
credit hour
room and board
Federal Student
Aid (FSA)
grant
student loan
work-study
scholarship
college is often described as "tuition and fees."
Tuition is calculated in many different ways. Many private colleges charge a flat rate per semester or academic year. For example, the tuition and fees for full-time students at Baylor University was $\$ 38,320$ for the 2014-2015 academic year. Most public universities and community colleges calculate tuition based on units. These units, which correspond roughly to the number of hours the class meets each week, are called by many different names, including credits, units, hours, or credit hours. Most colleges and universities in Texas use the terms hours or credit hours. A typical college class is 3 credit hours.

The following chart gives tuition and fees for a community college in Texas. Complete the chart, then answer the questions that follow.

|  | Credit Hours | Tuition | Fees | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | $\$ 67$ |  | $\$ 18$ |
| Semester | 18 | $\$$ | $\$$ | $\$$ |
| Year | 35 | $\$$ | $\$$ | $\$$ |
| 2-year degree | 70 | $\$$ | $\$$ | $\$$ |

How much would it cost in tuition and fees to complete the 70 credit hours needed for an Associate of Applied Science (AAS) degree in computer programming? \$ $\qquad$ -
It costs more for students to attend a public college or university if they do not live in a particular district or state. For example, suppose the community college charges an out-of-district fee of \$202 per credit hour. How much more would it cost a student who lived in another district to earn the AAS degree? \$ $\qquad$
How much would that student pay in tuition and fees? \$ $\qquad$
Suppose the tuition for out-of-state students is $\$ 343$ per credit hour. How much would an out-ofstate student pay in tuition and fees to complete the 70-credit degree? \$ $\qquad$

If you live at college, your second-biggest expense after tuition will be room and board. Room and board refers to the place you live (such as a room in a dormitory) and the meals that you eat (which are often served on a table, or board). College housing may include dormitories, shared houses, or apartments. Housing prices are comparable to rent prices. When living in a dormitory, you can select a meal plan and dine at the school's cafeterias. The college will charge per semester, but the average cost for housing and meals is around \$1,000 per month or \$9,000 per school year. That includes two semesters and does not include the summer.

After paying your tuition and housing costs, the next major expense will most likely be your books, supplies, and class fees. The cost of books will vary for each class and major, but you should expect to pay about $\$ 1,000$ per year on books. Other expenses might include a health plan, transportation, parking, lab fees, and extracurricular activities.

The following gives Texas A\&M's estimates of the costs of attendance for undergraduates in 2014-2015.

| Tuition and Fees | $\$ 9,180$ |
| :--- | :---: |
| Room and Board | $\$ 9,522$ |
| Books and Supplies | $\$ 1,000$ |
| Travel | $\$ 606$ |
| Personal Expenses | $\$ 2,100$ |
| Estimated Total Cost | $\$$ |

Suppose these numbers remained the same throughout the time a student was earning a 4 -year degree. How much would the 4 years of college cost?

## Paying for College

When you consider tuition, housing, and expenses, the cost of going to college for one year can be greater than $\$ 25,000$. That could mean a six-figure cost for four years of college. And these costs continue to rise each year.

Federal Student Aid (FSA) is the most common source of financial aid for college. Students fill out one application to acquire grants, loans, and/or work-study programs from the government to help pay for college. Students can supplement the money from FSA with money from savings, scholarships, and prepaid tuition programs such as a 529 college savings account. You can learn more about the 529 plans offered by the state of Texas at www.everychanceeverytexan.org/savings/compare.

- A grant is money that can be used toward college costs that does not need to be repaid. Grants are sometimes specific to careers. For example, a grant might be given to students majoring in teaching with the condition that those students become teachers. Grants are also given to students with very high achievement to encourage the brightest people to attend college.
- Fortunately, college is an investment and you should expect to make more money after graduating from college than you would have if you had not attended college at all. Because of this, institutions are willing to lend you money for college. After you graduate, you gradually pay back the loan. Student loans are the most common form of financial aid. These loans are typically low-interest and offer deferred payment, meaning students do not have to repay the loan while they are still attending school.
- A work-study program helps students find part-time jobs to earn money while attending college. Students in a work-study program are guaranteed a job with the expectation that the student attends classes and maintains a certain grade point average.
- A scholarship is similar to a grant. There are many scholarships that range in values from tens of dollars to tens of thousands of dollars. Scholarships are often talent-based. Colleges sometimes offer athletes a scholarship to attend their school on the condition they play a sport for the school. Scholarships are also given to students with academic achievements in high school.
- A prepaid tuition program offers students the ability to pay for college at today's tuition rates, instead of higher future rates. The money deposited into these prepaid accounts will grow with interest at the same rate that college tuitions raise. College tuition has risen nearly $500 \%$ since the 1980 s.


## Planning for College

You should start planning for college as soon as possible. The efforts you put forth in middle and high school today will affect the college you attend in the future. The courses you take in middle and high school affect the cost of college. Some colleges require students to have met minimum course requirements to take the first class in a program. For example, the pre-requisite for attending Math 101 in college may be to have a passing grade in High School Algebra 2. If you do not have that prerequisite, you may have to take an additional course at your own expense for no credit. Remember, each college course costs hundreds, if not thousands, of dollars. Another reason to work hard now is that some high school courses qualify for college credit. That is like taking a college course for free!

You can also plan for college by taking the time to look at colleges you might like to attend. Determine if you would like to go to a state school or attend a school in a different state. Also, start thinking about your major in college. Do your career plans require a two-year or a four-year degree? Will you need additional schooling at a university once you have your undergraduate (college) degree? If you plan on becoming a doctor or scientist, you may need additional years of school even after you earn your doctoral degree! If you are not sure what career you want, at least determine if you prefer to major in arts or sciences. If you know what school you want to attend but do not know what to major in, research the school and determine which programs the school has a good reputation for.

The more you plan for college today, the more prepared you will be in the future, both financially and mentally.

## Guided Instruction

Problem

Choose a 2-year or 4-year college you might want to attend. Use the college's website and other Internet resources to estimate the expenses for attending the school for 1 year. Then estimate how much income will be needed from each resource to pay for college. Are your expenses and resources balanced? Determine how much income you'll need to attend the full 2 or 4 years of the school.

| College Budget |  |  |  |
| :---: | :---: | :---: | :--- |
| Tuition: |  | Resources/Incomes: |  |
| Housing: |  | Family Contribution: |  |
| Meal Plan: |  | Loans: |  |
| Books: |  | Grants: |  |
| Fees/ Other Expenses: |  | Scholarships: |  |
| Total: |  | Employment: |  |
| Total: |  |  |  |

Step 1 Determine the school's tuition for 1 year. Assume 12-18 credit hours per semester. Write it in the table.

Step 2 Assume you will live in the dormitory the first year. Estimate the cost for 1 year. Write it in the table.

Step 3 Estimate your cost of meals for 1 year. Write it in the table.

Step 4 Estimate the cost of books and supplies. Write it in the table.

Step 5 Estimate other fees and expenses. Keep in mind the cost to fly/drive to school. Write it in the table.

Step 6 Add up the costs and write the total on the table.

Step 7 Estimate how much of the college your family or yourself can pay. Write it in the table.

Step 8 The lower the family contribution, the greater the loan. Estimate how much in loans you will need.

Step 9 Estimate if you will receive any grants or scholarships. Write them in the table.

Step 10 If you think you will have a job at school, estimate how much you will earn in a year.

Step 11 Find the total for your resources and income.
Are your expenses and resources balanced? Determine how much income you'll need to attend the full 2 or 4 years of the school.

## Another Example

A family does not want to take out any loans or depend on scholarships to pay for their child's college education. About how much would the family have to save each month starting with the child's birth to have enough money saved for college?

How much do you estimate college for the child will cost? Explain your reasoning.


About how much will the family have to save each month? \$ $\qquad$

## Gritical Thinking

## Solve each problem.

1. Many colleges award course credit to students who have achieved sufficiently high scores on Advanced Placement (AP) exams. How can taking AP courses or college-placement exams in high school reduce the costs of a college education?

2. Many states offer 529 college savings plans. The website for the plans for Texas is located at www.texascollegesavings.com/OFI529/. Click the link for the calculator. You can also go directly to the calculator's webpage, www.oppenheimerfunds.com/calculator/. Launch the Household Budget and Savings Calculator. Use the calculator to discover how different factors affect college savings. For example, model the following situation:

A family with a household net income of \$75,000 annually has a newborn (age $=0$ years). The family wants to save enough money for the child to attend a public four-year school, in state. They have no money set aside yet. Their expenses are the same as the national average.
After you have entered the information, click the Calculate button.
According to the calculator, how much will total tuition be when the child goes to college in 2032?

How much would the family need to place each month in a 529 plan with a $5 \%$ rate of return?

Suppose all the other information stays the same, but the child is 13 years old. How do the numbers change? What does this tell you about when a family should start to save for college?
$\qquad$
$\qquad$
3. Curious about what types of financial aid are available to you? Visit www.studentaid.ed.gov/ types to learn about financial aid from the federal government, your state, colleges, and nonprofit organizations. You might be eligible for additional financial aid if your parents have served in the military, or if you plan to enter military service after college.

## $\star$ Practice

## DIRECTIONS Read each question. Then circle the letter for the correct answer.

1 Lilah just turned 13 years old. Her parents started saving $\$ 200$ each month for her college education when she was born. Her parents want to make sure there will be enough money in her account by the time she turns 18 to cover tuition and expenses at an in-state, four-year college. How much should they contribute each month for the next 5 years if they want to save at least $\$ 100,000$ ?

A $\$ 200$
B $\$ 500$
C $\$ 1,000$
D $\$ 1,150$

2 Next year, Jay plans to take 24 credit hours of courses. Each credit hour costs $\$ 1,650$. Room will cost $\$ 9,000$ and board will cost $\$ 4,200$. How much will Jay pay for tuition, room, and board next year?

F $\$ 14,850$
G $\$ 48,600$
H $\$ 52,800$
J $\$ 82,500$

3 What is a possible benefit of taking extra courses each semester?

A Receiving more in loans to pay for the higher tuition costs

B Graduating a semester early and saving money on tuition

C Acquiring more credits than you need to graduate

D Graduating a semester earlier and saving money on housing

4 Carlo and Angie will be attending the same four-year college next year.

- Both will pay about $\$ 42,000$ in tuition and fees.
- Carlo will live on-campus and pay $\$ 12,000$ for room and board.
- Angie will live at home for free.
- Carlo has received an \$18,000 athletic scholarship.
- Angie has received a \$5,000 grant for academic achievement.

Which statement is correct?
F Angie will pay $\$ 49,000$.
G Angie will pay $\$ 1,000$ more than Carlo.
H Carlo will pay $\$ 72,000$.
J Carlo will pay $\$ 13,000$ less than Angie.

5 Ava wants to save for an in-state, two-year college education. She does some research and estimates that it will cost about $\$ 40,000$ for the two-year program. If Ava is 13 years old and plans to go to college in 5 years, which savings plan should Ava suggest to her family?

A Save $\$ 250$ each month.
B Save $\$ 700$ each month.
C Save \$2,250 each year.
D Save \$3,000 each year.

## $\star$ Assessment

## DIRECTIONS Read each question. Then circle the letter for the correct answer.

1 Christopher's parents want him to attend the same college that they attended. They estimate that tuition for the first year will be about $\$ 35,000$ in five years when Christopher will be a freshman. They begin to save $\$ 500$ each month for Christopher's college education, and hope that Christopher will receive enough financial aid to pay the rest. How much financial aid will Christopher need for his first year's tuition?

A $\$ 5,000$
B $\$ 10,000$
C $\$ 15,000$
D None, they will save enough

2 There are three children in the Rodriguez family: Daniel, age 14; Bella, age 10; and Ethan, age 6. Their parents decide to start a college fund for all three children. They will save the same amount each month, with the goal of having saved $\$ 25,000$ per child by the time that child starts college at age 18. About how much, in total, should Mr. and Mrs. Rodriguez save each month?

F $\$ 530$
G $\$ 960$
H $\$ 1,570$
J $\$ 2,090$

3 Marc is choosing between two colleges. His total expenses for each year of College A will be about $\$ 35,000$. His total expenses for each year of College $B$ will be about $\$ 40,000$. College B has offered Marc a scholarship of \$7,500 each year. Which college is the better financial choice?

A College A, because Marc will pay less \$5,000 less each year

B College A, because Marc will pay \$12,500 less each year

C College B, because Marc will pay \$2,500 less each year

D College B, because Marc will pay \$5,000 less each year

4 Penny is attending a four-year college. She needs 120 credits to earn her degree. The table shows the number of credits she has taken so far.


Her college charges $\$ 650$ per credit. How much more will she have to pay in tuition to earn her degree?

F $\$ 37,700$
G $\$ 40,300$
H $\$ 48,750$
J $\$ 78,000$

