

**Pre-Algebra 8: Scattered Plots and Data**

May 4 - 8

*Time Allotment: 40 minutes per day*

Student Name: \_\_\_\_\_

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Zoom Guided Instructions on Tuesdays and Thursdays

4<sup>th</sup> Period ... 10AM

5<sup>th</sup> Period ... 11AM

Packet Overview

Date	Objective(s)	Page Number
Monday, May 4	<b>Lesson 4:</b> Be able to estimate the cost of college education by calculating the expenses and financial aids.	2-4
Tuesday, May 5	<b>Lesson 4 Continued:</b> Be able to estimate the cost of college education by calculating the expenses and financial aids.	5-6
Wednesday, May 6	<b>Lesson 4 Continued:</b> Be able to estimate the cost of college education by calculating the expenses and financial aids.  <b>*Quiz TOMORROW, Thursday, May 7<sup>th</sup>*</b>	7-8
Thursday, May 7	<b>Lesson 5:</b> Be able to identify the advantages and the disadvantages of paying with cash, credit cards, debit cards, and/or with online banking.  <b>*Quiz on Lesson 4 ONLY</b>	8-10  11
Friday, May 8	<b>Lesson 5 Continued:</b> Be able to identify the advantages and the disadvantages of paying with cash, credit cards, debit cards, and/or with online banking.	12

**Additional Notes:**

- ❖ **Materials:** Printed packet or notebook paper; pencils. **CALCULATORS may be used.**
  - **Note:** If you are using notebook paper, be sure to write the pages and numbers of the material.
  - **Example:** P. 4; #6) \_\_\_\_\_
- ❖ **Quiz on Pages 11**
- ❖ **Answer Key:** Pages 13-18

**Academic Honesty**

I certify that I completed this assignment independently in accordance with the GHNO Academy Honor Code.

*Student signature:*

\_\_\_\_\_

I certify that my student completed this assignment independently in accordance with the GHNO Academy Honor Code.

*Parent signature:*

\_\_\_\_\_

*Pre-Algebra Unit: Financial Literacy*

**Unit Overview: Financial Literacy**

Now we will continue to learn about simple and compound interest, the cost of credit, the cost of college, methods of payments, and financial responsibility. All math tasks are important, but these topics will be used regularly throughout your life. The earlier you learn about these and apply them to your life, the better you will be financially!

**Monday, May 4**

*Pre-Algebra Unit: Financial Literacy*

**Lesson 4: Cost of College**


**Objective:** Be able to estimate the cost of college education by calculating the expenses and financial aids.

- Happy Monday! You are moving into HIGH SCHOOL SOON! In this section, you will learn about COLLEGE expenses. This section may help you to start planning NOW!
- Watch the **VIDEO!!!**
- Read and use this information for the questions.



**THE COST OF COLLEGE**

Estimating the cost of a college education should take into consideration your expenses as well as the sources of financial aid that are available to help pay for these educational expenses.

**EXPENSES**

- 
- **TUITION & FEES:** The cost of taking classes or courses at your school
  - **ROOM & BOARD:** The cost of food (or a “meal plan”) and housing
  - **BOOKS & SUPPLIES:** The cost of textbooks and course materials needed
  - **TRANSPORTATION + OTHER:** The cost of gas, entertainment, eating out, laundry, etc.

**FINANCIAL AID**

- 
- **SCHOLARSHIPS:** Money given based on talents, grades or other circumstances
  - **GRANTS:** Money given usually based on a student's financial need
  - **WORK STUDY:** Money students earn by working at jobs provided by the college
  - **LOANS:** Money borrowed which must be repaid, usually with interest
- 

- Describe the main difference between loans and the other forms of financial aid listed above:

The table below lists the estimated expenses that Leo and his two friends will have at the schools they want to attend. Complete the table by totaling each person's annual expenses.

	LEO 4-year public university	KATE 4-year private university	BEN 2-year community college
TUITION & FEES	\$7,800	\$28,200	\$4,100
ROOM & BOARD	\$9,500	\$10,100	\$0 (live at home)
BOOKS & SUPPLIES	\$1,350	\$1,250	\$1,400
TRANSPORTATION, ETC	\$750	\$750	\$1,100
<b>COST PER YEAR:</b>	<b>\$19,400</b>		

1. Leo qualifies for a total of \$6,200 in scholarships and grants per year, and he will earn \$2,700 each year through a work-study program.

a. Including financial aid, what should Leo estimate the cost per year to be? $19400 - 6200 - 2700 = \$10,500$	b. Including financial aid, what should Leo estimate the cost of 4 years to be? $10500 \times 4 \text{ yrs}$
c. Leo's family will cover 65% of his college expenses each year. How much will Leo need to contribute each year? $10500 \times (100\% - 65\%) = 35\%$	d. If Leo has 4 years to save the amount he needs for his first year of college, how much should he save each month?

$$\begin{array}{r} 10500 \\ \times \quad .35 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \text{ years} = 48 \text{ months} \\ 10,500 \div 48 = \end{array}$$

2. Kate qualifies for a total of \$9,450 in scholarships and grants per year, and she will earn \$2,900 each year through a work-study program.

a. Including financial aid, what should Kate estimate the cost per year to be?	b. Including financial aid, what should Kate estimate the cost of 4 years to be?
c. Kate's family will contribute \$16,000 towards her expenses each year. How much will Kate need to contribute each year?	d. If Kate has 4 years to save the amount she needs for her first year of college, how much should she save each month?

3. Ben qualifies for a total of \$1,500 in scholarships and grants per year, and he will earn \$1,750 each year through a work-study program.

a. Including financial aid, what should Ben estimate the cost per year to be? _____	b. Including financial aid, what should Ben estimate the cost of 2 years to be? _____
c. Ben's family will cover 25% of his college expenses each year. How much will Ben need to contribute each year? _____	d. If Ben has 4 years to save the amount he needs for his first year of college, how much should he save each month? _____

Answer each question below about saving for college.

4. Roberto has \$2,500 in a college savings account, and for the next four years he will deposit either \$100 or \$150 into the account. According to the table, how much more would Roberto have in his account after 4 years if he saves \$150 instead of \$100 each month?  $10458 - 7911.44 =$

Starting Balance	Monthly Deposit	Total Value in 4 Years
\$2,500	\$100	\$7,911.44
\$2,500	\$150	\$10,458

5. Tanya has \$5,000 to open a college savings account and she plans to deposit \$50/month to the account. If she starts now, she has 5 years to save, but she may wait until her senior year and only save for 1 year. How much more will Tanya have if she starts saving now instead of waiting?

Starting Balance	Monthly Deposit	Total Value in 1 Year	Total Value in 5 Years
\$5,000	\$50	\$5,814.83	\$9,419.93

6. Jeffrey is a senior in high school, and he estimates that he will need to contribute \$7,000/year towards his college education. Jeffrey has one year to save enough for his first year. Complete the table to show how much Jeffrey should save each month based on how much he might already have in savings in order to meet his goal.  $7000 - 12 \text{ months}$   $6000 - 12$   $4500 - 12$

Current Amount Saved	\$0	\$1,000	\$2,500	\$5,000
Monthly Amount Needed	\$_____	\$_____	\$_____	\$_____

➤ Great! Now, check and correct your work!

**Tuesday, May 5**

*Pre-Algebra Unit: Scatter Plots and Data*

**Lesson 4 Continued: Cost of College**

**Objective:** Be able to estimate the cost of college education by calculating the expenses and financial aids.

- Today we will continue learning more about the cost of college.
- Be sure to **SHOW WORK!**

## THE COST OF COLLEGE

Kari and two of her friends are entering their senior year of high school. The tables below show the estimated expenses at three types of colleges they are considering attending in their state. Complete the blanks in each table for the total costs at each school. Then, use the tables to help you answer each of the questions below.

4-YEAR PUBLIC UNIVERSITY		4-YEAR PRIVATE UNIVERSITY		2-YEAR COMMUNITY COLLEGE	
Tuition & Fees	\$8,500	Tuition & Fees	\$25,100	Tuition & Fees	\$4,400
Room & Board	\$6,700	Room & Board	\$8,000	Room & Board	\$5,000
Books & Supplies	\$1,250	Books & Supplies	\$1,300	Books & Supplies	\$1,100
Misc. Expenses	\$700	Misc. Expenses	\$750	Misc. Expenses	\$800
Total (1 Year):	17,150	Total (1 Year):		Total (1 Year):	
Total (4 Years):		Total (4 Years):		Total (2 Years):	

A. Kari plans to attend a 2-year community college. She will receive \$4,500 in scholarships and grants each year, and she will earn \$1,500 each year through a work study program.

1. Including her financial aid, what is Kari’s estimated cost per year?
2. Kari’s family will contribute \$3,000 each year. How much will Kari need to contribute?
3. Kari has one year to save enough for her first year’s contributions. Complete each statement to show how much Kari will need to save each month based on her current savings.
  - a. If Kari currently has \$0 in savings, she will need to save \_\_\_\_\_ each month.
  - b. If Kari currently has \$1,000 in savings, she will need to save \_\_\_\_\_ each month.
  - c. If Kari currently has \$2,000 in savings, she will need to save \_\_\_\_\_ each month.



B. Jamal plans to attend a 4-year private university. He will receive \$8,200 in scholarships and grants each year, and he will earn \$1,900 each year through a work study program.

4. Including his financial aid, what is Jamal's estimated cost per year?
5. Jamal's family will contribute \$21,000 each year. How much will Jamal need to contribute?
6. Jamal has one year to save enough for his first year's contributions. Complete each statement to show how much Jamal will need to save each month based on his current savings.
- a. If Jamal currently has \$0 in savings, he will need to save \_\_\_\_\_ each month.
  - b. If Jamal currently has \$1,000 in savings, he will need to save \_\_\_\_\_ each month.
  - c. If Jamal currently has \$2,000 in savings, he will need to save \_\_\_\_\_ each month.

C. Skye plans to attend a 4-year public university. She will receive \$4,300 in scholarships and grants each year, and she will earn \$2,100 each year through a work study program.

7. Including her financial aid, what is Skye's estimated cost per year?
8. Skye's family will contribute \$7,000 each year. How much will Skye need to contribute?
9. Skye has one year to save enough for her first year's contributions. Complete each statement to show how much Skye will need to save each month based on her current savings.
- a. If Skye currently has \$0 in savings, she will need to save \_\_\_\_\_ each month.
  - b. If Skye currently has \$1,000 in savings, she will need to save \_\_\_\_\_ each month.
  - c. If Skye currently has \$2,500 in savings, she will need to save \_\_\_\_\_ each month.

➤ **CHECK AND CORRECT!** See you tomorrow!

Wednesday, May 6

*Pre-Algebra Unit: Financial Literacy*

**Lesson 4 Continued: Cost of College**

**Objective:** Be able to estimate the cost of college education by calculating the expenses and financial aids.

## THE COST OF COLLEGE: RECORDING SHEET

PROBLEM	WORK & SOLUTION
<p>1. Nick estimates that he will need <u>\$10,500</u><sub>(money)</sub> per year for tuition at the college he wants to attend. Nick's grandparents will be able to pay for <u>20%</u><sub>(percent)</sub> of his expenses. If Nick has <u>1yr</u><sub>(time)</sub> to save for the rest of his tuition for his first year, what is the minimum amount that he should save each month to meet his goal?</p>	<div style="text-align: center;"> <math display="block">  \begin{array}{c}  100\% \\  (\\$10,500) \\  \swarrow \quad \searrow \\  \text{Grandparents} \quad \text{Nick} \\  20\% \quad \quad \quad 80\% \\  (\\$2,100) \quad \quad (\\$8,400)  \end{array}  </math> <p style="text-align: center;">+ \$8400 ÷ 12 months = \$700 (1 year)</p> </div> <div style="float: right; margin-top: 10px;"> <math display="block">  \begin{array}{r}  10500 \\  \times .20 \\  \hline  2100 \\  \\  10500 \\  \times .80 \\  \hline  8400  \end{array}  </math> <p style="text-align: right;">\$700/month</p> </div>
<p>2. Portia wants to attend a college that will cost <u>\$4,400</u><sub>(money)</sub> per year for tuition. Portia's family can pay for <u>65%</u><sub>(percent)</sub> of her annual expenses. If Portia has <u>5yrs</u><sub>(time)</sub> to save for the rest of her tuition for the first two years of college, what is the minimum amount that she should save each month to meet her goal?</p>	<p style="text-align: right;">_____</p>
<p>3. Austin plans to attend a college that will cost <u>\$25,000</u><sub>(money)</sub> per year for tuition. Austin's estimated financial aid and family contribution will cover <u>45%</u><sub>(percent)</sub> of his annual expenses. Austin wants to save enough to cover the rest of his tuition for the first year of college. If he has <u>2.5yr</u><sub>(time)</sub> to save, what is the minimum amount that he should save each month to meet his goal?</p>	<p style="text-align: right;">_____</p>



PROBLEM	WORK & SOLUTION
<p>4. Estela has <u>3 yrs</u><sub>(time)</sub> to save for the first year of her college tuition. The cost of tuition at the school she wants to attend is <u>\$9000</u><sub>(money)</sub> per year, but she will only need to pay for <u>25%</u><sub>(percent)</sub> and her family will help with the rest. What is the minimum amount that Estela should save each month in order to meet her goal?</p>	<p>_____</p>
<p>5. Raymond's parents have told him that they will pay for <u>30%</u><sub>(percent)</sub> of his college tuition expenses. The college Raymond wants to attend costs <u>\$6000</u><sub>(money)</sub> for tuition. If Raymond will need to contribute the remaining amount after his parent's contribution, how much should he save each month if he has <u>4 yrs</u><sub>(time)</sub> to save and wants to save enough for his first year?</p>	<p>_____</p>
<p>6. Callie plans to attend a college that will cost <u>\$21,500</u><sub>(money)</sub> per year for tuition. Callie's estimated financial aid and family contribution will cover <u>60%</u><sub>(percent)</sub> of her annual expenses. Callie wants to save enough to cover the rest of her tuition for the first two years of college. If she has <u>2 yrs</u><sub>(time)</sub> to save, what is the minimum amount that she should save each month to meet her goal?</p>	<p>_____</p>

- I hope that you are having some fun with this material.
- Be sure to CHECK AND CORRECT your answers!

**Thursday, May 7**

*Pre-Algebra Unit: Financial Literacy*

**QUIZ on COST of COLLEGE** after the questions below!

**Lesson 5: Methods of Payment**

**Objective:** Be able to identify the advantages and the disadvantages of paying with cash, credit cards, debit cards, and/or with online banking.

- Hello! Thursday work begins on the next page!
- Read the given information and use that to answer the questions.

## METHODS OF PAYMENT

Below are some common methods of payment used. Use the table to compare each type of payment, its advantages and disadvantages, and any other important information to know.

	CASH	CREDIT CARDS	DEBIT CARDS	ONLINE BANKING
WHAT IS IT?	Using a person's own money in <u>physical</u> form	Using a small <u>plastic</u> card issued by a financial company to <u>borrow</u> money that you will repay later	Using a small <u>plastic</u> card issued by a bank or financial institution to immediately <u>transfer</u> your own money out of your account	Using the <u>internet</u> to manage your money (making transfers, paying bills, making deposits, etc.)
ADVANTAGES?	<ul style="list-style-type: none"> <li>-Causes you to "feel" the expense as you're making purchases</li> <li>-May help you stay within your budget</li> </ul>	<ul style="list-style-type: none"> <li>-Allows you the chance to build good credit history</li> <li>-May earn rewards</li> <li>-Convenient and easy to use</li> <li>-Helpful in emergencies</li> </ul>	<ul style="list-style-type: none"> <li>-Convenient and easy to use</li> <li>-A PIN must be entered to use it</li> <li>-You can only spend what you have</li> <li>-You can use it like an ATM card to get "cash back"</li> </ul>	<ul style="list-style-type: none"> <li>-Convenient way to pay bills and manage money; can save trips to the bank</li> <li>-Most banks also offer mobile friendly apps or options which allows you to do more "on the go"</li> </ul>
DISADVANTAGES?	<ul style="list-style-type: none"> <li>-Cannot make online purchases</li> <li>-No proof of making purchases other than a receipt</li> <li>-Less convenient/ quick to pay with</li> </ul>	<ul style="list-style-type: none"> <li>-Charged interest if balances are carried</li> <li>-Can be easier to overspend or make purchases you can't afford</li> <li>-Possible fees (late fees, annual fees)</li> </ul>	<ul style="list-style-type: none"> <li>-If you try to spend more than what is in your account, you may be charged an overdraft fee</li> </ul>	<ul style="list-style-type: none"> <li>-Computer hacking and identity theft can pose threats to the security of online banking</li> <li>-May have deposit limitations if using mobile device</li> </ul>
OTHER INFO OR TIPS?	Keep any cash organized and in a safe place, and be sure to keep your receipt any time you make a purchase with cash.	Avoid interest by paying off your credit card balance each month. Only make purchases you know you will be able to pay off in a timely manner.	Keep your PIN number secure, and always report a lost or stolen debit card immediately. Check your account balance often to avoid overdraft fees.	Always use a network that you know and trust. Create strong passwords, and never give account info to unknown callers (telemarketers, etc.)

1. For each situation below, identify which form of payment is being described by recording the correct number. Some will be used more than once.

I. Cash

II. Credit Card

III. Debit Card

IV. Online Banking

- \_\_\_\_\_ a. Forrest bought a pair of shoes by swiping his card at the store. He'll actually pay the balance at the end of the month.
- \_\_\_\_\_ b. Divya logs onto her computer and uses her bank's website to submit a payment for her electricity bill on the 25<sup>th</sup> of each month.
- \_\_\_\_\_ c. Fernando drove to his bank, made a withdrawal and then drove to the mall to purchase an outfit for his upcoming school dance.
- \_\_\_\_\_ d. Ellie went out to eat with friends and paid by swiping a card. The cost of her meal was immediately taken out of her linked bank account.
- \_\_\_\_\_ e. Ryan needed to deposit a check. Instead of driving to the bank, he snaps a picture of the check using his cell phone and it is deposited to his account.
- \_\_\_\_\_ f. Jayden purchased an \$800 road bike, but he ended up paying \$892.15 by the time it was paid off because of interest.
- \_\_\_\_\_ g. Julie purchased a movie ticket and popcorn, and the cashier gave her \$0.70 in change.

Evaluate each scenario below to give advice and reflect on the various methods of payment.

<p>2. Every method of payment has its pros and cons. List what you think might be the greatest risk of using each type of payment:</p> <ul style="list-style-type: none"> <li>• Cash:</li> <li>• Credit Card:</li> <li>• Debit Card:</li> <li>• Online Banking:</li> </ul>	<p>3. Marlise has both a credit card and debit card, but she is having a hard time knowing when to use her credit card vs. her debit card. What are some suggestions or pieces of advice you'd give to Marlise?</p>
<p>4. Brielle works at a fast food restaurant, and she has noticed that people who are paying with credit cards end up spending more on average than people who are paying with cash. Why do you think that might be the case?</p>	<p>5. An unknown number calls you to congratulate you on a \$500 gift card to their new store opening. They ask for your online account information to directly transfer the funds to you. How do you respond?</p>

➤ Check these answers and then take the QUIZ on the next page!

**QUIZ on Cost of College! This is the page you should submit on Google Classroom under “Minor Assessment.”**

**You may use a pencil and a calculator!**

4-YEAR PUBLIC UNIVERSITY	
Tuition & Fees	\$12,500
Room & Board	\$9,000
Books & Supplies	\$1,100
Misc. Expenses	\$800
1) Total (1 Year):	
2) Total (4 Years):	

1. Skye plans to attend a 4-year public university. She will receive \$4,300 in scholarships and grants each year, and she will earn \$2,100 each year through a work study program.

3 Including her financial aid, what is Skye’s estimated cost per year?

1. Skye’s family will contribute \$7,000 each year. How much will Skye need to contribute?

2. Skye has one year to save enough for her first year’s contributions. Complete each statement to show how much Skye will need to save each month based on her current savings.

- a. If Skye currently has \$0 in savings, she will need to save \_\_\_\_\_ each month.
- b. If Skye currently has \$1,000 in savings, she will need to save \_\_\_\_\_ each month.
- c. If Skye currently has \$2,500 in savings, she will need to save \_\_\_\_\_ each month.

PROBLEM	WORK & SOLUTION
4. Estela has <u>2 yrs</u> <sub>(time)</sub> to save for the first year of her college tuition. The cost of tuition at the school she wants to attend is <u>\$10,500</u> <sub>(money)</sub> per year, but she will only need to pay for <u>45%</u> <sub>(percent)</sub> and her family will help with the rest. What is the minimum amount that Estela should save each month in order to meet her goal?	_____

**Friday, May 8****Lesson 5 Continued:** Methods of Payment

**Objective:** Be able to identify the advantages and the disadvantages of paying with cash, credit cards, debit cards, and/or with online banking.

## METHODS OF PAYMENT

Read each description below. Record the letter under the method of payment it is describing.

CASH	CREDIT CARD	DEBIT CARD	ONLINE BANKING

- A. Reynaldo likes that this method of payment allows him to transfer money from his account into his long-term savings account without having to leave his home.
  
- B. Wade dislikes that when he gets behind on his payments using this method of payment, he will be charged interest.
  
- C. Janae likes that she can count this method of payment in her hands and is more aware of how much she is spending.
  
- D. Evangeline dislikes that this method of payment will charge her a fee if she accidentally tries to spend more than is in her account at the time.
  
- E. Ruben likes that this method of payment allows him to earn rewards and will give him the opportunity to prove to lenders that he is trustworthy and responsible.
  
- F. Anna likes that this method of payment allows her to create her own security code as well as receive cash back at many stores when she needs it.
  
- G. Julius dislikes that this method of payment could put him at risk for being hacked, especially over unknown or public networks.
  
- H. Lori dislikes that this method of payment is easy for her to lose and is bulkier and less convenient to pay with than some other methods of payment.
  
- I. Stephen likes that this method of payment allows him to make purchases on things that he might not necessarily have the money for at the time but knows that he will later.
  
- J. Darion dislikes that he has to hang on to his receipts in order to keep track of his purchases using this method of payment.



## ANSWERS

The table below lists the estimated expenses that Leo and his two friends will have at the schools they want to attend. Complete the table by totaling each person's annual expenses.

	<b>LEO</b> 4-year public university	<b>KATE</b> 4-year private university	<b>BEN</b> 2-year community college
<b>TUITION &amp; FEES</b>	\$7,800	\$28,200	\$4,100
<b>ROOM &amp; BOARD</b>	\$9,500	\$10,100	\$0 (live at home)
<b>BOOKS &amp; SUPPLIES</b>	\$1,350	\$1,250	\$1,400
<b>TRANSPORTATION, ETC</b>	\$750	\$750	\$1,100
<b>COST PER YEAR:</b>	\$19,400	\$40,300	\$6,600

1. Leo qualifies for a total of \$6,200 in scholarships and grants per year, and he will earn \$2,700 each year through a work-study program.

a. Including financial aid, what should Leo estimate the cost per year to be? <span style="float: right; color: red;">\$10,500</span>	b. Including financial aid, what should Leo estimate the cost of 4 years to be? <span style="float: right; color: red;">\$42,000</span>
c. Leo's family will cover 65% of his college expenses each year. How much will Leo need to contribute each year? <span style="float: right; color: red;">\$3,675</span>	d. If Leo has 4 years to save the amount he needs for his first year of college, how much should he save each month? <span style="float: right; color: red;">\$76.56</span>

2. Kate qualifies for a total of \$9,450 in scholarships and grants per year, and she will earn \$2,900 each year through a work-study program.

a. Including financial aid, what should Kate estimate the cost per year to be? <span style="float: right; color: red;">\$27,950</span>	b. Including financial aid, what should Kate estimate the cost of 4 years to be? <span style="float: right; color: red;">\$111,800</span>
c. Kate's family will contribute \$16,000 towards her expenses each year. How much will Kate need to contribute each year? <span style="float: right; color: red;">\$11,950</span>	d. If Kate has 4 years to save the amount she needs for her first year of college, how much should she save each month? <span style="float: right; color: red;">\$248.96</span>

3. Ben qualifies for a total of \$1,500 in scholarships and grants per year, and he will earn \$1,750 each year through a work-study program.

a. Including financial aid, what should Ben estimate the cost per year to be? <span style="float: right; color: red;">\$3,350</span>	b. Including financial aid, what should Ben estimate the cost of 2 years to be? <span style="float: right; color: red;">\$6,700</span>
c. Ben's family will cover 25% of his college expenses each year. How much will Ben need to contribute each year? <span style="float: right; color: red;">\$2,512.50</span>	d. If Ben has 4 years to save the amount he needs for his first year of college, how much should he save each month? <span style="float: right; color: red;">\$52.34</span>



Answer each question below about saving for college.

4. Roberto has \$2,500 in a college savings account, and for the next four years he will deposit either \$100 or \$150 into the account. According to the table, how much more would Roberto have in his account after 4 years if he saves \$150 instead of \$100 each month? \$2,546.56

Starting Balance	Monthly Deposit	Total Value in 4 Years
\$2,500	\$100	\$7,911.44
\$2,500	\$150	\$10,458

5. Tanya has \$5,000 to open a college savings account and she plans to deposit \$50/month to the account. If she starts now, she has 5 years to save, but she may wait until her senior year and only save for 1 year. How much more will Tanya have if she starts saving now instead of waiting?

Starting Balance	Monthly Deposit	Total Value in 1 Year	Total Value in 5 Years
\$5,000	\$50	\$5,814.83	\$9,419.93

\$3,605.10

6. Jeffrey is a senior in high school, and he estimates that he will need to contribute \$7,000/year towards his college education. Jeffrey has one year to save enough for his first year. Complete the table to show how much Jeffrey should save each month based on how much he might already have in savings in order to meet his goal.

Current Amount Saved	\$0	\$1,000	\$2,500	\$5,000
Monthly Amount Needed	\$ <u>583.33</u>	\$ <u>500</u>	\$ <u>375</u>	\$ <u>166.67</u>

## THE COST OF COLLEGE

Kari and two of her friends are entering their senior year of high school. The tables below show the estimated expenses at three types of colleges they are considering attending in their state. Complete the blanks in each table for the total costs at each school. Then, use the tables to help you answer each of the questions below.

4-YEAR PUBLIC UNIVERSITY	
Tuition & Fees	\$8,500
Room & Board	\$6,700
Books & Supplies	\$1,250
Misc. Expenses	\$700
Total (1 Year):	\$17,150
Total (4 Years):	\$68,600

4-YEAR PRIVATE UNIVERSITY	
Tuition & Fees	\$25,100
Room & Board	\$8,000
Books & Supplies	\$1,300
Misc. Expenses	\$750
Total (1 Year):	\$35,150
Total (4 Years):	\$140,600

2-YEAR COMMUNITY COLLEGE	
Tuition & Fees	\$4,400
Room & Board	\$5,000
Books & Supplies	\$1,100
Misc. Expenses	\$800
Total (1 Year):	\$11,300
Total (2 Years):	\$22,600

A. Kari plans to attend a 2-year community college. She will receive \$4,500 in scholarships and grants each year, and she will earn \$1,500 each year through a work study program.

1. Including her financial aid, what is Kari's estimated cost per year? **\$5,300**
2. Kari's family will contribute \$3,000 each year. How much will Kari need to contribute? **\$2,300**
3. Kari has one year to save enough for her first year's contributions. Complete each statement to show how much Kari will need to save each month based on her current savings.
  - a. If Kari currently has \$0 in savings, she will need to save \$191.67 each month.
  - b. If Kari currently has \$1,000 in savings, she will need to save \$108.33 each month.
  - c. If Kari currently has \$2,000 in savings, she will need to save \$25 each month.

B. Jamal plans to attend a 4-year private university. He will receive \$8,200 in scholarships and grants each year, and he will earn \$1,900 each year through a work study program.

4. Including his financial aid, what is Jamal's estimated cost per year? **\$25,050**
5. Jamal's family will contribute \$21,000 each year. How much will Jamal need to contribute? **\$4,050**
6. Jamal has one year to save enough for his first year's contributions. Complete each statement to show how much Jamal will need to save each month based on his current savings.
  - a. If Jamal currently has \$0 in savings, he will need to save \$337.50 each month.
  - b. If Jamal currently has \$1,000 in savings, he will need to save \$254.17 each month.
  - c. If Jamal currently has \$2,000 in savings, he will need to save \$170.83 each month.

C. Skye plans to attend a 4-year public university. She will receive \$4,300 in scholarships and grants each year, and she will earn \$2,100 each year through a work study program.

7. Including her financial aid, what is Skye's estimated cost per year? **\$10,750**
8. Skye's family will contribute \$7,000 each year. How much will Skye need to contribute? **\$3,750**
9. Skye has one year to save enough for her first year's contributions. Complete each statement to show how much Skye will need to save each month based on her current savings.
  - a. If Skye currently has \$0 in savings, she will need to save \$312.50 each month.
  - b. If Skye currently has \$1,000 in savings, she will need to save \$229.17 each month.
  - c. If Skye currently has \$2,500 in savings, she will need to save \$104.17 each month.

## THE COST OF COLLEGE: RECORDING SHEET

PROBLEM	WORK & SOLUTION
<p>1. Nick estimates that he will need <u>\$10,500</u> per year for tuition at the college he wants to attend. Nick's grandparents will be able to pay for <u>20%</u> of his expenses. If Nick has <u>1yr</u> to save for the rest of his tuition for his first year, what is the minimum amount that he should save each month to meet his goal?</p>	$  \begin{array}{r}  100\% \\  (\$10,500) \\  \swarrow \quad \searrow \\  \text{Grandparents} \quad \text{Nick} \\  20\% \quad \quad \quad + \quad \quad 80\% \\  (\$2,100) \quad \quad \quad (\$8,400) \\  \\  \$8,400 \div 12 \text{ months} = \$700 \\  \text{(1 year)} \\  \\  \underline{\$700/\text{month}}  \end{array}  $
<p>2. Portia wants to attend a college that will cost <u>\$4,400</u> per year for tuition. Portia's family can pay for <u>65%</u> of her annual expenses. If Portia has <u>5yrs</u> to save for the rest of her tuition for the first two years of college, what is the minimum amount that she should save each month to meet her goal?</p>	$  \begin{array}{r}  100\% \\  (\$4,400) \\  \swarrow \quad \searrow \\  \text{Family} \quad \quad \quad \text{Portia} \\  65\% \quad \quad \quad + \quad \quad 35\% \\  (\$2,850) \quad \quad \quad (\$1,540) \text{ 1yr} \\  \quad \quad \quad \quad \quad \quad \quad \quad \$3,080 \text{ 2yrs} \\  \\  3,080 \div 60 \text{ months} = \underline{\$51.33/\text{month}} \\  \text{(5 years)}  \end{array}  $
<p>3. Austin plans to attend a college that will cost <u>\$25,000</u> per year for tuition. Austin's estimated financial aid and family contribution will cover <u>45%</u> of his annual expenses. Austin wants to save enough to cover the rest of his tuition for the first year of college. If he has <u>2.5yr</u> to save, what is the minimum amount that he should save each month to meet his goal?</p>	$  \begin{array}{r}  100\% \\  (\$25,000) \\  \swarrow \quad \searrow \\  \text{Family} \quad \quad \quad \text{Austin} \\  45\% \quad \quad \quad + \quad \quad 55\% \\  (\$11,250) \quad \quad \quad (\$13,750) \\  \\  \$13,750 \div 30 \text{ months} = \underline{\$458.33/\text{month}} \\  \text{(2.5 years)}  \end{array}  $
PROBLEM	WORK & SOLUTION
<p>4. Estela has <u>3yrs</u> to save for the first year of her college tuition. The cost of tuition at the school she wants to attend is <u>\$9,000</u> per year, but she will only need to pay for <u>25%</u> and her family will help with the rest. What is the minimum amount that Estela should save each month in order to meet her goal?</p>	$  \begin{array}{r}  100\% \\  (\$9,000) \\  \swarrow \quad \searrow \\  \text{Parents} \quad \quad \quad \text{Estela} \\  75\% \quad \quad \quad + \quad \quad 25\% \\  (\$6,750) \quad \quad \quad (\$2,250) \\  \\  \$2,250 \div 36 = \underline{\$62.50/\text{month}} \\  \text{(3 years)}  \end{array}  $
<p>5. Raymond's parents have told him that they will pay for <u>30%</u> of his college tuition expenses. The college Raymond wants to attend costs <u>\$6,000</u> for tuition. If Raymond will need to contribute the remaining amount after his parent's contribution, how much should he save each month if he has <u>4yrs</u> to save and wants to save enough for his first year?</p>	$  \begin{array}{r}  100\% \\  (\$6,000) \\  \swarrow \quad \searrow \\  \text{Parents} \quad \quad \quad \text{Raymond} \\  30\% \quad \quad \quad + \quad \quad 70\% \\  (\$1,800) \quad \quad \quad (\$4,200) \\  \\  \$4,200 \div 48 \text{ months} = \underline{\$87.50/\text{month}} \\  \text{(4 yrs)}  \end{array}  $
<p>6. Callie plans to attend a college that will cost <u>\$21,500</u> per year for tuition. Callie's estimated financial aid and family contribution will cover <u>60%</u> of her annual expenses. Callie wants to save enough to cover the rest of her tuition for the first two years of college. If she has <u>2yrs</u> to save, what is the minimum amount that she should save each month to meet her goal?</p>	$  \begin{array}{r}  100\% \\  (\$21,500) \\  \swarrow \quad \searrow \\  \text{Parents} \quad \quad \quad \text{Callie} \\  + \text{AID} \quad \quad \quad + \quad \quad 40\% \\  60\% \quad \quad \quad (\$17,200) \\  (\$12,900)  \end{array}  $



$$\$17200 \times 2 \text{ yrs} = 34,400 \div 24 \text{ months} = \$1433.33/\text{mo}$$

1. For each situation below, identify which form of payment is being described by recording the correct number. Some will be used more than once.

- I. Cash                      II. Credit Card                      III. Debit Card                      IV. Online Banking

- II a. Forrest bought a pair of shoes by swiping his card at the store. He'll actually pay the balance at the end of the month.
- IV b. Divya logs onto her computer and uses her bank's website to submit a payment for her electricity bill on the 25<sup>th</sup> of each month.
- I c. Fernando drove to his bank, made a withdrawal and then drove to the mall to purchase an outfit for his upcoming school dance.
- III d. Ellie went out to eat with friends and paid by swiping a card. The cost of her meal was immediately taken out of her linked bank account.
- IV e. Ryan needed to deposit a check. Instead of driving to the bank, he snaps a picture of the check using his cell phone and it is deposited to his account.
- II f. Jayden purchased an \$800 road bike, but he ended up paying \$892.15 by the time it was paid off because of interest.
- I g. Julie purchased a movie ticket and popcorn, and the cashier gave her \$0.70 in change.

\*Answers in 2-5 will vary. Example answers have been provided.

Evaluate each scenario below to give advice and reflect on the various methods of payment.

<p>2. Every method of payment has its pros and cons. List what you think might be the greatest risk of using each type of payment:</p> <ul style="list-style-type: none"> <li>• Cash: <b>Losing it/having it stolen</b></li> <li>• Credit Card: <b>Overspending</b></li> <li>• Debit Card: <b>Overdrafting</b></li> <li>• Online Banking: <b>Hacking</b></li> </ul>	<p>3. Marlise has both a credit card and debit card, but she is having a hard time knowing when to use her credit card vs. her debit card. What are some suggestions or pieces of advice you'd give to Marlise?</p> <p><b>I would tell Marlise to use her credit card only when she knows that she can pay the balance off within the month. If she's having a hard time staying within budget, I would use a debit card for purchases.</b></p>
<p>4. Brielle works at a fast food restaurant, and she has noticed that people who are paying with credit cards end up spending more on average than people who are paying with cash. Why do you think that might be the case?</p> <p><b>It could be that it's easier to spend more with a credit card because you don't "feel" the expense like you would when handing someone cash.</b></p>	<p>5. An unknown number calls you to congratulate you on a \$500 gift card to their new store opening. They ask for your online account information to directly transfer the funds to you. How do you respond?</p> <p><b>Do not agree to share your personal information over the phone and hang up.</b></p>

### METHODS OF PAYMENT

Read each description below. Record the letter under the method of payment it is describing.

CASH	CREDIT CARD	DEBIT CARD	ONLINE BANKING
C, H, J	B, E, I	D, F	A, G