

# Teacher Guide

for

## Get Rich With Math

~~$2\frac{1}{2} \times 1\frac{3}{5}$~~   
~~Converted~~  
 ~~$\frac{5}{2} \times \frac{8}{5} = \frac{40}{10}$  or  $4\frac{5}{10}$  or  $4\frac{1}{2}$~~

$2\frac{1}{2} \times 1\frac{3}{5}$   
Converted  
 $\frac{5}{2} \times \frac{8}{5} = \frac{40}{10} = 4$

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# Technical Info

## for

### Get Rich With Math

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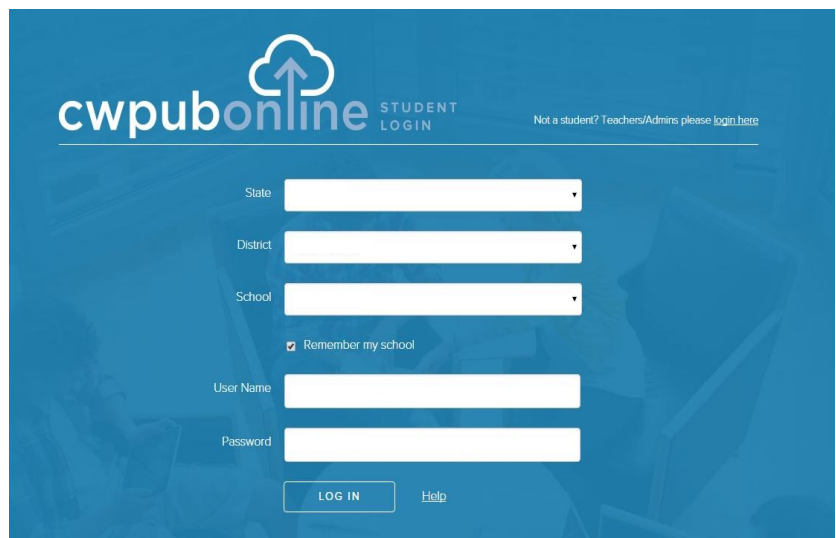
$2\frac{1}{2} \times 1\frac{3}{5}$   
Converted  
 $\frac{5}{2} \times \frac{8}{5} = \frac{40}{10}$  or 4

## Student Login: How your students will access Get Rich With Math.

- 1) Go to [www.cwpubonline.com](http://www.cwpubonline.com)
- 2) Click **STUDENT LOGIN** on the home page.

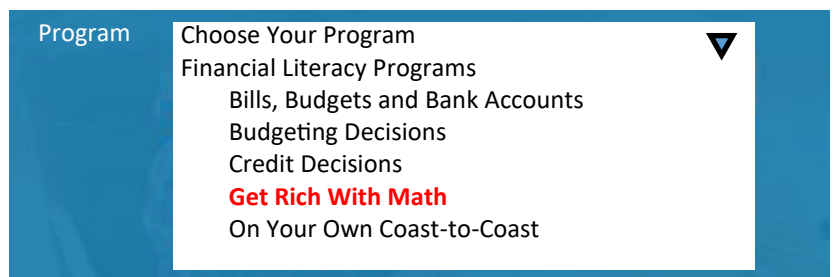
### 3) LOG IN :

- **State:** First, use the drop down menu to select your state.
- **District:** Next, use the drop down menu to select your district.
- **School:** Finally, use the drop down menu to select your school.
- **User Name:** Enter your user name.
- **Password:** Enter your password.



- 4) Select Get Rich With Math from the Financial Literacy program menu.

- 5) Click the **BEGIN** button.



**TIP:** If you want to run Get Rich With Math just as your students do, log in to your Teacher account and choose “Access the Programs”.

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## The Programs Work Best in Full Screen Mode

To work in full screen mode, use the following commands based on your type of device:

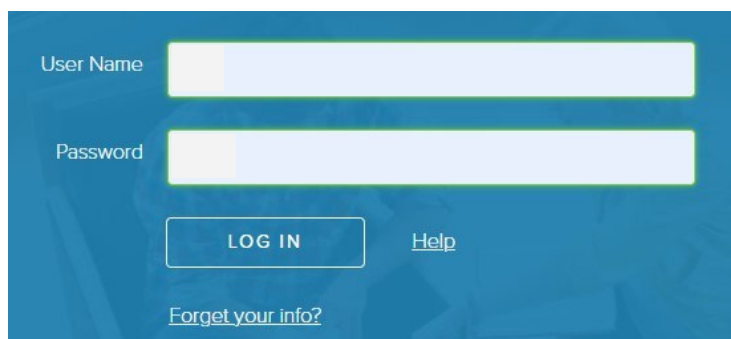
- Windows: F11
- Mac: Command + Shift + F
- Chromebook: Full Screen key

## Teacher/Admin Log in

To log in to the system as a teacher or admin, you will click the **TEACHER/ADMIN LOGIN** at the top right of the cwpubonline.com homepage.

Enter your User Name and password and then click the **LOG IN** button.

If you cannot remember your user name or password, click the “Forget your info?” link under the **LOG IN** button and enter your email on the next screen and click the submit button. Your credentials will be emailed to your address.

A screenshot of the login interface for the system. It features a blue background with a subtle pattern. There are two input fields: 'User Name' and 'Password', both with light blue borders and a small white cursor icon. Below the 'Password' field is a 'LOG IN' button with a white border and blue text. To the right of the button is a 'Help' link in blue text. Below the 'LOG IN' button is a 'Forget your info?' link in blue text.

Note: Teacher and Admin accounts can only log into the admin portion of the portal.

**TIP:** If you want to run **Get Rich With Math** just as your students do, log in to your **Teacher account** and choose “**Access the Programs**”.

## Minimum System Requirements

- Reliable Broadband Internet Connection
- A web browser that supports HTML5. C.W. Publications recommends Google Chrome.
- Microsoft Windows: Windows 7 / Windows 8 / Windows 10 / Windows 11
- Mac OS X 10.6 or higher
- Chrome OS
- Monitor

A Color Monitor with minimum resolution of 1024 x 768 is required.

- Sound Capability

The sound is optional and may be turned off by clicking on the Audio Icon located in Program Utilities.

- For technical support email [support@cwpub.com](mailto:support@cwpub.com)













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## Generating Student Reports

To create the reports for one or more students:

- 1) Click the “Classes” link on the left side of the page
- 2) Click the green reports icon next to the class containing the student(s) for which you want to generate the report(s)

### Classes

<a href="#">School</a>	<a href="#">First Name</a>	<a href="#">Last Name</a>	<a href="#">Class</a>	<a href="#"># of Students current/max</a>	<a href="#">Expiration Date</a>	<a href="#">Student Management</a>
Demo School	Demo	Teacher	Demo 3	10/50	1/17/2016	   
Demo School	Demo	Teacher	Demo 2	4/100	1/23/2016	   
Demo School	Demo	Teacher	Demo 1	1/50	1/5/2016	   

Most Recent

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>

- 3) On the Reports screen that opens, click the radio button next to the report you wish to print. If you are choosing to print a budget or a spending report, you will also need to choose the month from the drop down box.

- 4) Select the Student Name, or choose the All Students option if you want to print your entire class, from the drop down menu

- 5) Press the **Get Report** button

### Reports for Demo 2 - Demo School

**Select Report:**

**On Your Own**

☐ Summary

☒ Spending

☐ Budget

**On The Job**

☐ Personnel File

August

**Select Student:**

Student504, Demo

Get Report Cancel

- 6) The report for the student will be present on the screen. If you wish to print the report, click the **Print Report** button and a printable version of the report will be created.

**NOTE:** You are only able to generate reports for the current or finished simulation for students. If a student starts a new simulation the report data will reset.

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## Limiting Program Availability to Students

By default, all students in your class(es) have access to all programs available within the cwpubonline portal. If you wish to limit your student(s) to certain programs this can be accomplished through the Admin Portal.

### **LIMITING INDIVIDUAL STUDENTS:**

- 1) Log into the Admin Portal
- 2) Click the "Students" link on the left hand side of the screen
- 3) You can scroll through the list of students on the bottom section of the screen or you can use the search box at the top of the screen to quickly find the student you wish to limit
- 4) Click the "Pencil Icon" next to the student
- 5) Click the check box next to "Customize access to simulations for this student (overrides current class setting)"
- 6) Remove the check marks next to the programs you do not want your student to access
- 7) Click the "Update" button

### **LIMITING YOUR ENTIRE CLASS TO ONE OR MORE PROGRAMS:**

- 1) Log into the Admin Portal
- 2) Click on the "Classes" link on the left hand side of the page
- 3) Click the "Pencil Icon" next to the class in which you to set the limits
- 4) Check the box next to "Select simulations available to students in the class"
- 5) Remove the check marks next to the programs you do not want your students to access
- 6) Click the "Update" button at the bottom of the screen
- 7) You will see a warning box state that setting limits for a class will override individual student selections,

# Overview of Get Rich With Math

In this real world math challenge, students will work their way through five levels of multi-step problems pertaining to the categories of **Money**, **Wheels**, **Home**, **Stuff** and **Fun**. Each time they solve a problem correctly, they improve their lifestyle.

The image shows two handwritten calculations for  $2\frac{1}{2} \times \frac{3}{5}$ . The top calculation is crossed out with a red 'X' and shows an incorrect conversion:  $2\frac{1}{2} \times \frac{3}{5} = \frac{5}{2} \times \frac{8}{5} = \frac{40}{10} = 4$ . The bottom calculation is marked with a green checkmark and shows the correct conversion:  $2\frac{1}{2} \times \frac{3}{5} = \frac{5}{2} \times \frac{3}{5} = \frac{15}{10} = 1\frac{1}{2}$ .

- **MONEY:** Students will complete math problems related to paychecks, bank statements, credit card statements and stock portfolios to score points and earn a bigger stack of cash. Find sample problem answers here.
- **WHEELS:** Students will complete math problems related to the cost of car repairs, gasoline, auto leases and loans to score points and earn a more expensive car. Find sample problem answers here.
- **HOME:** Students will complete math problems related to rent, household necessities, utilities, mortgages and the cost of living to score points and earn a more extravagant home. Find sample problem answers here.
- **STUFF:** Students will complete math problems related to clothing, mobile devices, electronics, recreational vehicles and more to score points and earn luxury items. Find sample problem answers here.
- **FUN:** Students will complete math problems related to movies, hobbies, entertainment and vacations to score points and earn swankier opportunities for fun. Find sample problem answers here.

## How Get Rich With Math Works

To begin Get Rich With Math, students choose any one of the 5 lifestyle icons at the top of the screen. The students will be shown a math problem related to the category that includes all the information needed to solve the problem in the form of a table, chart, bill, statement etc. The blank spaces shown in the problem are guides to help students solve the problem and are not to be filled in.

After students have calculated their solution, they will select one of the multiple choice answers at the bottom of the screen.

The screenshot shows the 'Get Rich With Math' interface. At the top, there are five lifestyle icons: MONEY, WHEELS, HOME, STUFF, and FUN. Below them, the current level is 'LEVEL: 1 of 5', the score is 'SCORE: 0 pts', and the possible points are 'POSSIBLE POINTS: 100'. The main problem area displays a paycheck stub for 'Bilton Hotel' for a new part-time employee named Sophia Irenaldo. The problem asks for the net pay, rounded to the nearest cent. The paycheck stub includes earnings, deductions, and gross pay. At the bottom, there are four multiple-choice answers: '\$343.08', '\$343.03', '\$343.49', and '\$343.85'.

Bilton Hotel				EIN 38-2924596 45685				
				ID	Leave	Accrued	Used	Available
Sophia Irenaldo				08/17/2011	0	0	0	0
Marital Status: Single								
Period For: 08/17/2011 To: 08/30/2011								
Earnings	Rate	Hours	Amount	Current	Year To Date	Year To Date	Current	Year To Date
YD Hour	10.75	30.00		26.00			0.00	0.00
				Deductions				
				Fed W/H (0.000)				
				Soc Sec (0.20)				
				Medicare (1.45)				
				State W/H Tax (3.5)				
				Total Deductions				
				Net Pay				
Gross Pay								

They will have five chances to solve each problem. Each time they try, the question will be different and the points they earn will decrease. If students answer incorrectly on all five chances, their challenge will be over.

Students must complete all five lifestyle categories on Level 1 before they move to Level 2. As they continue to higher levels, point values will increase and their lifestyle will improve.

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## Scoring

The maximum score a student can achieve is 7,500 points. This chart shows the point values for each level and attempt. For example, a student who solves a level 1 problem on the 1st try receives 100 points while a student who solves a level 1 problem on the third try receives 60 points. Point values increase at each higher level.

	1ST	2ND	3RD	4TH	5TH
LEVEL 1	100	80	60	40	20
LEVEL 2	200	160	120	80	40
LEVEL 3	300	240	180	120	60
LEVEL 4	400	320	240	160	80
LEVEL 5	500	400	300	200	100

## The Summary

Students can select Summary at any time to see and/or print their scores. Summary will list the score for each lifestyle category and level plus the grand total.

PRINT

### Summary

	Money	Wheels	Home	Stuff	Fun	Totals
Level 1	100	100	100	100	100	500
Level 2	200	200	160	120	200	880
Level 3	240	300	240	-	-	780
Level 4	-	-	-	-	-	0
Level 5	-	-	-	-	-	0
Grand Total: 2160						

## Quit and Save

Students can select Quit to leave the program at any time. When they Quit, their work will be saved automatically so they can return to the same place at a later time.

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## Money Sample Problems

### Money Level 1

Show below is the first paycheck stub for a new part-time employee at the Bilton Hotel. What was her net pay? Round all answers to the nearest cent.

<b>Bilton Hotel</b>			EIN 38-2924596		<b>45685</b>	
			Leave	Accrued	Used	Available
ID BW400131			0	0	0	0
Sophia Renaldo						
<b>Marital Status:</b> Single		<b>Period For:</b> 08/17/20**		<b>To:</b> 08/30/20**		
<b>Earnings</b>	<b>Rate</b>	<b>Hours</b>	<b>Current Amount</b>	<b>Year to Date Hours</b>	<b>Year To Date Amount</b>	
YD Hour	9.35	34.00	317.90	34.00	317.90	
			<b>Deductions</b>		<b>Current Amount</b>	<b>Year To Date Amount</b>
			Fed W/H (0.00%)		0.00	0.00
			Soc Sec (6.2%)		19.71	
			Medicare (1.45%)		4.61	
			State W/H Tax (3.5%)		11.13	
<b>Gross Pay</b>			<b>Total Deductions</b>		<b>35.45</b>	
			<b>Net Pay</b>		<b>282.45</b>	

### Money Level 2

What is the balance of this online checking/debit card statement on 07/08.

T	Date	Time	Debit (-)	Credit (+)	Description	Balance
1	07/03/20**	09:30 AM		\$1,230.76	Auto Deposit / Paycheck	\$1,474.05
2	07/03/20**	12:14 PM	\$ 6.89		Debit Card / Subway	1,467.16
3	07/03/20**	06:12 PM	\$ 40.00		ATM Withdrawal	1,427.16
4	07/04/20**	11:23 AM	\$ 57.89		Debit Card / Walmart	1,369.27
5	07/04/20**	06:47 PM	\$ 32.48		Debit Card / Plaza Cinemas	1,336.79
6	07/05/20**	01:23 PM	\$ 26.34		Debit Card / Shell Oil	1,310.45
7	07/05/20**	02:17 PM	\$ 41.82		Debit Card / Dunham Sports	1,268.63
8	07/06/20**	09:43 AM	\$725.00		Check 2482/ Lakefront Apartments	543.63
9	07/06/20**	09:56 AM	\$ 68.17		Check 2485 / Commonwealth Edison	475.46
10	07/06/20**	12:15 PM	\$ 12.14		Debit Card / Gino's Deli	463.32
11	07/07/20**	12:22 PM	\$ 7.68		Debit Card / Subway	455.64
12	07/07/20**	02:47 PM		\$ 124.38	Refund / Amazon.com	580.02
13	07/07/20**	05:42 PM	\$ 9.46		Debit Card / Walmart	570.56
14	07/07/20**	08:36 PM	\$135.78		Debit Card / Amazon.com	434.78
15	07/08/20**	10:23 AM	\$ 68.43		Auto Debit / Verizon Wireless	366.35



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## Money Sample Problems

### Money Level 3

What percentage of the credit limit on this newly issued credit card was spent? Round answer to the nearest 1/10th percent.

#### MasterCard Statement

issued by Midland Valley Bank



Tran Date	Post Date	Reference Number	Purchases and Cash Advances	Amount
05/14/2016	05/18/2016	8510159SGLAQ47M6MA	Steampowered.com	15.93
05/22/2016	05/24/2016	5530876HOFXRDGCRDA	Shell Oil	50.00
05/24/2016	05/26/2016	2541575H202KNGRDV0	Marathon Oil	15.06
05/24/2016	05/26/2016	5530876HOFXJDNGHIME	Shell Oil	8.32
05/30/2016	06/01/2016	5530876H824GEDIHUW9	Shell Oil	27.58
06/06/2016	06/08/2016	5530876H3JUDHYER89N	Shell Oil	25.00
06/08/2016	06/10/2016	0543684JDIKH957WDHB	Casey's General Store	28.28
06/12/2016	06/13/2016	5548382HDFRMSX351	Wal-Mart	9.90
06/12/2016	06/14/2016	5530876H824KIHGDS29	Shell Oil	25.00
06/15/2016	06/16/2016	5531658DFRGCKJYF88W	BP Oil	30.00

#### Summary of Account Activity

Previous Balance.....	\$ 0.00
— Payments.....	\$ 0.00
— Other Credits.....	\$ 0.00
+ Purchases .....	<b>235.07</b>
+ Cash Advances .....	\$ 0.00
+ Fees Charged.....	\$ 0.00
+ Interest Charged .....	\$ 0.00
= New Balance.....	<b>235.07</b>
Credit Limit.....	\$500.00
Available Credit.....	<b>264.93</b>

$$\frac{\$235.07}{\$500.00} = .4701 = 47.0\%$$

### Money Level 4

What is the total value of this stock portfolio at the end of the 3rd month? Round answers to the nearest cent.

Month 1	Share Price	Shares Sold	Shares Bought
Volt Motors	30.12		50
Texas Natural Gas	21.34		60
Merkel Manufacturing	25.03		20
Month 2			
Volt Motors	31.50		10
Texas Natural Gas	25.25	20	
Merkel Manufacturing	24.75		20
Month 3			
Volt Motors	34.25		20
Texas Natural Gas	27.50	20	
Merkel Manufacturing	23.12		30

$$+ 50$$

$$+ 60$$

$$+ 20$$

$$50 + 10 = 60$$

$$60 - 20 = 40$$

$$20 + 20 = 40$$

$$80 \times \$34.25 = \$2,740.00$$

$$20 \times \$27.50 = \$ 550.00$$

$$70 \times \$23.12 = \$1,618.40$$

$$\$4,908.40$$



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## Money Sample Problems

### Money Level 5

What was the average daily balance of this savings account in June? Round to the nearest cent.

Date	Deposit	Withdrawal	Interest	Balance
03/11				\$ 150.00
03/25	\$25.00			\$ 175.00
03/31			\$ .90	\$ 175.90
04/08	\$25.00			\$ 200.90
04/22	\$25.00			\$ 225.90
05/06	\$25.00			\$ 250.90
05/20	\$25.00			\$ 275.90
06/03	\$50.00			\$ 325.90
06/09		\$40.00		\$ 285.90
06/17	\$50.00			\$ 335.90
06/30			\$1.98	\$ 337.88
07/01	\$80.00			\$ 417.88
07/15	\$50.00			\$ _____
07/25		\$25.00		\$ _____
07/29	\$60.00			\$ _____

Date	Deposit	Withdrawal	Interest	Balance
08/12	\$50.00			\$ _____
08/16	\$150.00			\$ _____
09/02	\$50.00			\$ _____
09/07		\$75.00		\$ _____
09/16	\$30.00			\$ _____
09/30	\$30.00			\$ _____
09/30			\$4.05	\$ _____
10/14	\$30.00			\$ _____
10/28	\$30.00			\$ _____
11/11	\$40.00			\$ _____
11/25	\$40.00			\$ _____
12/09		\$300.00		\$ _____
12/27	\$150.00			\$ _____
12/31			\$3.42	\$ _____

$$\text{\$275.90} \times 2 = \text{\$ 551.80}$$

$$\text{\$325.90} \times 6 = \text{\$1,955.40}$$

$$\text{\$285.90} \times 8 = \text{\$2,287.20}$$

$$\text{\$335.90} \times 13 = \text{\$4,366.70}$$

$$\text{\$337.88} \times 1 = \text{\$ 337.88}$$

$$\text{\$9,498.98} / 30 = \text{\$316.63}$$

## Wheels Sample Problems

### Wheels Level 1

What is the total due for the following car repair bill? Round answers to the nearest cent.

#### Oil Change

Oil Filter ..... \$ 6.00

Oil..... 14.58

Labor..... 10.74

#### Replace Air Conditioner Belt

Belt..... \$ 31.98

Labor..... 36.78

#### Repair Front Brakes

Parts..... \$ 90.50

Labor..... 130.00

#### Rotate Tires

Labor..... \$ 17.95

#### Customer Charges & Discounts

Total Labor ..... \$ **195.47**

Total Parts ..... \$ **128.48**

Total Oil ..... \$ **14.58**

Environmental Disposal \$ 18.00

Discount Coupons..... \$ - 33.50

Subtotal ..... \$ **323.03**

Tax (6.25% x Subtotal)... \$ **20.19**

**TOTAL DUE..... \$ 343.22**

### Wheels Level 2

What was the average amount spent each month on gasoline. Round all dollar values to the nearest cent.

Month	Price of Regular Unleaded		Gallons Purchased	=	Amount Spent	
1	\$2.19	X	13.8	=	\$	<b>30.22</b>
	2.09		13.2		\$	<b>27.59</b>
	2.29		12.5		\$	<b>28.63</b>
	2.15		11.4		\$	<b>24.51</b>
						<b>\$110.95</b>
2	\$2.11		14.6		\$	<b>30.81</b>
	2.05		12.1		\$	<b>24.81</b>
	2.09		14.2		\$	<b>29.68</b>
						<b>\$ 85.30</b>
3	\$2.09		13.7		\$	<b>28.63</b>
	2.11		14.8		\$	<b>31.23</b>
	2.29		12.4		\$	<b>28.40</b>
						<b>\$ 88.26</b>

$$\text{\$110.95} + \text{\$85.30} + \text{\$88.26} = \text{\$284.51}$$

$$\text{\$284.51} / 3 = \text{\$94.84}$$

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## Wheels Sample Problems

### Wheels Level 3

If old car (A) is traded for new car (B) and the monthly savings on gasoline was applied to the new car (B) monthly payment, what would be the adjusted monthly car payment? Assume 18,000 miles driven and an average gasoline price of \$2.19. Round all

Annual Miles Driven	Gas Price (\$/gal)	Old Car (A) Gas Mileage	Old Car (A) Monthly Payment	New Car (B) Gas Mileage	New Car (B) Monthly Payment	Average Monthly Gas Savings	Adjusted Monthly Car Payment
18,000	\$2.19	20 mpg	\$0.00	50 mpg	\$575.34	\$ 98.55	\$476.79
	\$2.49	20 mpg	\$0.00	50 mpg	\$575.34		
	\$2.79	20 mpg	\$0.00	50 mpg	\$575.34		
24,000	\$2.19	20 mpg	\$0.00	50 mpg	\$575.34		
	\$2.49	20 mpg	\$0.00	50 mpg	\$575.34		
	\$2.79	20 mpg	\$0.00	50 mpg	\$575.34		

$$18,000 / 20 = 900 \text{ gallons} \quad 900 \times \$2.19 = \$1,971.00$$

$$\$1,971.00 - \$788.40 = \$1,182.60$$

$$18,000 / 50 = 360 \text{ gallons} \quad 360 \times \$2.19 = \$ 788.40$$

$$\$1,182.60 / 12 = \$98.55$$

$$\$575.34 - \$98.55 = \$476.79$$

### Wheels Level 4

For the following new car lease, what is the total amount due at the lease signing?

The monthly payment is determined as shown below:			Total amount due at the lease signing	
Gross Capitalization Cost (The \$21,500 value of the vehicle plus an \$800 service contract).....	\$	22,300.00	Capitalization cost reduction.....	\$ 3,500.00
Capitalization cost reduction (A trade-in allowance of \$3,500.) .....	— \$	3,500.00	Amount to be in cash:	
Adjusted capitalization cost (amount used to calculate the base monthly payment) .....	= \$	18,800.00	First Monthly Payment .....	\$ 256.94
Residual Value (value of the vehicle at the end of the lease) .....	— \$	12,350.00	Refundable Security Deposit .....	\$ 350.00
Depreciation (The amount charged for the vehicles decline in value through normal use.....)	= \$	6,450.00	Title Fees.....	\$ 75.00
Rent charge (The amount charged in addition to the depreciation) .....	+ \$	5,295.00	Registration Fees.....	\$ 60.00
Total of base monthly payments (The depreciation plus the rent charge).....	= \$	11,745.00	Total .....	\$ 4,241.94
Lease payments (the number of payments during the lease period).....	÷	48		
Base monthly payment.....	= \$	244.69		
Monthly sales/use tax .....	+ \$	12.25		
Total monthly payment .....	= \$	256.94		



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## Wheels Sample Problems

### Wheels Level 5

Based on the sale price, what would be the total cost of the Chevy Cruze including all taxes and fees? Round all answers to the nearest cent.

<b>Chevrolet Cruze</b>  WAS \$17,989 or \$227/month  <b>Sale Price</b> <b>\$15,989</b>  or <b>\$196/month</b>	<b>Chevy Camero Convertible</b>  WAS \$33,988 or \$469/month  <b>Sale Price</b> <b>\$31,988</b>  or <b>\$439/month</b>	<b>Chevrolet Silverado LT</b>  WAS \$35,988 or \$499/month  <b>Sale Price</b> <b>\$32,988</b>  or <b>\$454/month</b>	<b>Ford Fiesta SE</b>  WAS \$13,988 or \$166/month  <b>Sale Price</b> <b>\$11,988</b>  or <b>\$136/month</b>	<b>Ford Taurus Limited</b>  WAS \$16,988 Or \$212/month  <b>Sale Price</b> <b>\$14,988</b>  or <b>\$181/month</b>
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Prices and payments do not include sales tax (6.5%), title fee (\$110), license fee (\$125) and documentation fee (\$185). Sales tax is paid only on the sale price of the vehicle. Payments are based on \$3000 down (cash or trade-in) and 72 months@2.9% with

$$\text{\$15,989} \times .065 = \text{\$1,039.29}$$

$$\text{\$14,112.00} + \text{\$1,039.29} + \text{\$3,000} + \text{\$110.00} + \text{\$125.00} + \text{\$185.00} = \text{\$18,571.29}$$

$$\text{\$196.00} \times 72 = \text{\$14,112.00}$$

## Home Sample Problems

### Home Level 1

What is the average monthly rent per apartment at the Lake Johnson Apartments? Round answers to the nearest cent.

#### Lake Johnson Apartments:

Nestled on the wooded lake shore. Easy access to recreation areas, shopping, entertainment and downtown. Washer/dryer, kitchen appliances, spacious closets, air conditioning, ceiling fans. Rent includes water and trash. All electric. We offer:

20 Studio Apartments                      560 square feet      \$ 650 / Month

40 One Bedroom Apartments              750 square feet      \$ 790 / Month

25 Two Bedroom Apartments              1,070 square feet      \$1,100 / Month

**20 x \$ 650 = \$13,000**

**40 x \$ 790 = \$31,600**

**25 x \$1,100 = \$27,500**

**\$72,100 / 85 = \$848.24**

### Home Level 2

What was the total cost of the following household items? Round answers to the nearest cent.

Bath Towels (3 at \$7.97 each) .....	<b>23.91</b>	Flatware Set (20 pieces) .....	24.97
Hand Towels (3 at \$2.97 each) .....	<b>8.91</b>	Cookware Set (8 pieces) .....	79.99
Bath Mat.....	14.97	Cooking Utensil Set (28 pieces).....	29.97
Sheet Set .....	39.88	Bar Stools (2 at \$19.96 each) .....	<b>39.92</b>
Comforter .....	34.96	Storage Bins (2 at \$7.97 each) .....	<b>15.94</b>
Pillows (2 at \$16.96 each).....	<b>33.92</b>	Hangers (10) .....	4.24
Trash Cans (3 at \$5.47 each).....	<b>16.41</b>	Subtotal.....	<b>407.84</b>
Dinnerware Set (4 place settings).....	26.88	6.75% Sale Tax .....	<b>27.53</b>
Glasses Set (6 glasses) .....	12.97	Total.....	<b>435.37</b>



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# Home Sample Problems

## Home Level 3

What is the total amount due on this electric bill? Round answers to the nearest cent.

Total Amount Due by 08/19/20**			\$ 75.99	Issued 07/28/20** Account # 8476290025			
Read Date	Meter Number	Load type	Previous	Present	Difference	Multiplier	Usage kWh
7/17/20**	857328456	General	36792	37358	566	x 1	566
			37358 — 36792 = 566				
Charge Details: Retail Delivery Service - Single Residence 06/28/20** - 07/27/20** (30 days)							
Energy Supply Charge = 566 kWh x 0.06250 .....						\$	35.38
Delivery Charge.....						\$	35.69
Customer Charge.....						\$10.75	
Standard Meter Charge.....						5.25	
Distribution Facility Charge 566 kWh x 0.03337.....						\$ 18.89	
Electricity Distribution Charge 566 kWh x 0.00142 .....						\$ .80	
Taxes and Fees.....						\$	4.92
Environmental Cost Recovery 566 kWh x 0.00035 .....						\$ .20	
Energy Efficiency Programs 566 kWh x 0.00229 .....						\$ 1.30	
State Tax.....						\$ 3.42	

## Home Level 4

What would be the unpaid balance the second month of this 30 year mortgage? Round dollar values to the nearest cent.

<b>AMOUNT FINANCED</b>	<b>\$ 225,000.00</b>
Home Price = \$250,000 Down Payment = 10%	
<b>Monthly Payment (\$477.42 + \$477.42 + \$119.35)</b>	<b>\$ 1,074.19</b>
Annual Rate = 4%. Use the chart to determine the monthly payment.	
<b>Monthly Interest Rate</b>	<b>.0033</b>
Annual Rate = 4% Round to 4 decimal places.	
<b>First Month's Interest (225,000 x .0033)</b>	<b>\$ 742.50</b>
<b>Second Month's Unpaid Balance (\$225,000—\$331.69)</b>	<b>\$ 224,668.31</b>

Amount Financed	4% Annual Interest Rate
\$ 15,000	\$ 71.61
20,000	95.48
<b>25,000</b>	<b>119.35</b>
30,000	143.22
35,000	167.10
40,000	190.97
50,000	238.71
<b>100,000</b>	<b>477.42</b>



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# Home Sample Problems

## Home Level 5

Based on the cost of living index for housing, what would be the cost of a home in Chicago, Illinois that cost \$150,000 in Des

	Atlanta	Chicago	Des Moines	Los Angeles	New York	San Francisco
Cost of Living Index for Housing:	81	97	61	280	275	515
	<b>97 / 61 = 1.590 = 1.59</b>		<b>\$150,000 x 1.59 = \$238.500</b>			



## Stuff Sample Problems

### Stuff Level 1

What is the total cost of the following clothing items? Round answers to the nearest cent.

Hoodie.....	24.99
Jacket.....	49.99
Jeans.....	39.99
Shirt (long sleeve casual).....	29.99
Shirt (long sleeve dress).....	24.99
Shoes (casual).....	39.99
Shoes (dress).....	59.99
Socks (3 pack).....	16.99
Suit.....	149.99
Sweater .....	34.99
Subtotal.....	\$ <b>471.90</b>
Sales Tax (6.5%).....	\$ <b>30.67</b>
Total .....	\$ <b>502.57</b>

### Stuff Level 2

Over a 2 year period, what is the difference in the cost per day between an iPhone with a small plan and a Galaxy with a medium plan? Round to the nearest cent.

Phone	Cost	
Apple iPhone .....	\$27.08 per month for 24 months = <b>\$649.92</b>	<b>Galaxy = \$1,872.00</b>
Samsung Galaxy.....	\$28.00 per month for 24 months = <b>\$672.00</b>	<b>iPhone = - <u>\$1,489.92</u></b>
Google Pixel.....	\$27.58 per month for 24 months	<b>\$ 382.08</b>
Motorola Moto.....	\$25.85 per month for 24 months	<b>\$382.08 / 730 = \$ .52</b>
Plans	Cost	
Small (2 GB) .....	\$35 per month = <b>\$ 840.00</b>	
Medium (4 GB) .....	\$50 per month = <b>\$1,200.00</b>	
Large (8 GB) .....	\$70 per month	
X Large (16 GB).....	\$90 per month	



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## Stuff Sample Problems

### Stuff Level 3

What is the total cost of the tablet and accessories? Round answers to the nearest cent.

Item	Regular Price	Discount	Sale Price
Microsoft Surface Tablet	\$599.00	25%	<b>\$449.25</b>
Tablet Cover	\$ 29.99	40%	<b>\$ 17.99</b>
Tablet Screen Shield	\$ 26.99	55%	<b>\$ 12.15</b>
Tablet Stand with Charger	\$ 89.99	10%	<b>\$ 80.99</b>
Tablet Car Mount	\$ 39.99	20%	<b>\$ 31.99</b>
		Subtotal	<b>\$592.37</b>
		6.5% Sales Tax	<b>\$ 38.50</b>
		Total Cost	<b>\$630.87</b>

### Stuff Level 4

The cash price of a jet ski is \$9,599 plus 6% sales tax. A \$2,000 down payment is made. The remainder is financed over 36 months at 4% add on interest using a retail installment contract. What is the amount of the 36th payment? Round answers to the nearest

<b>ANNUAL PERCENTAGE RATE</b> The cost of my credit as a yearly rate: _____	<b>FINANCE CHARGE</b> The dollar amount the credit will cost me: \$ _____	<b>Amount Financed</b> The amount of credit provided to me or on my behalf: \$ _____	<b>Total of Payments</b> The amount I will have paid after I have made all payments as scheduled: \$ _____	<b>Total Sale price</b> The total cost of my purchase on credit, including down payment of: \$ _____
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**My Payment Schedule will be:**

Number of Payments	Amount of Payments	When Payments Are Due
35 payments of		
1 final payment of	<b>\$254.39</b>	

$$\$9,599.00 \times 1.06 = \$10,174.94$$

$$\$10,174.94 - \$2,000.00 = \$8,174.94$$

$$\$8,174.94 \times .04 = \$327.00$$

$$\$327.00 \times 3 = \$981.00$$

$$\$8,174.94 + \$981.00 = \$9,155.94$$

$$\$9,155.94 / 36 = \$254.33$$

$$\$254.33 \times 35 = \$8,901.55$$

$$\$9,155.94 - \$8,901.55 = \$254.39$$



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## Stuff Sample Problems

### Stuff Level 5

What was the cost of owning and operating this boat during the month of June? Round answers to the nearest cent.

#### Costs of Boat Ownership and Operation in June

Total of monthly payments for a 5 year boat and trailer loan.....	\$28,999.80 . . . \$	<b>483.33</b>
Annual insurance premium (boat and trailer).....	\$ 495.80 . . . \$	<b>41.32</b>
Dock rental fee for 6 months.....	\$ 270.00 . . . \$	<b>45.00</b>
Cost of Gasoline in June .....		<b>\$ 1,300.03</b>

55.0 gallons at \$2.19/gallon

39.3 gallons at \$2.39/gallon

44.2 gallons at \$2.29/gallon

47.6 gallons at \$2.29/gallon

50.1 gallons at \$2.29/gallon

41.5 gallons at \$2.39/gallon

45.9 gallons at \$2.39/gallon

51.8 gallons at \$2.39/gallon

47.5 gallons at \$2.29/gallon

52.9 gallons at \$2.39/gallon

42.5 gallons at \$2.29/gallon

43.6 gallons at \$2.19/gallon

**98.6 gallons x \$2.19 = \$ 215.93**

**231.9 gallons x \$2.29 = \$ 531.05**

**231.4 gallons x \$2.39 = \$ 553.05**

**\$1,300.03**

## Fun Sample Problems

### Fun Level 1

How much more expensive is the average 3D movie ticket price than the average standard movie ticket price? Round answers to

Standard Movies	3D Movies	IMAX Movies
Children ..... \$ 9.00	Children ..... \$12.50	Children ..... \$15.50
Adults ..... \$12.00	Adults ..... \$15.50	Adults ..... \$18.50
Seniors ..... \$ 9.50	Seniors ..... \$13.00	Seniors ..... \$16.00
Students ..... \$11.00	Students ..... \$14.50	Students ..... \$15.50
Military ..... \$10.00	Military ..... \$13.50	Military ..... \$15.50

$$\text{\$12.50} + \text{\$15.50} + \text{\$13.00} + \text{\$14.50} + \text{\$13.50} = \text{\$69.00} / 5 = \text{\$13.80}$$

$$\text{\$ 9.00} + \text{\$12.00} + \text{\$ 9.50} + \text{\$11.00} + \text{\$10.00} = \text{\$51.50} / 5 = \text{\$10.30}$$

$$\text{\$ 3.50}$$

### Fun Level 2

The Cubs are playing the Cardinals at Wrigley Field in Chicago. How much more expensive is the total online ticket price for 3 upper

Price for 3 Tickets.....	\$ 108.00	\$ 162.00
9% City of Chicago Amusement Tax.....	\$ 9.72	\$ 14.58
3% Cook County Amusement Tax.....	\$ 3.24	\$ 4.86
Per Ticket Fee (\$4.75 each).....	\$ 14.25	\$ 14.25
9% City of Chicago Fee Tax.....	\$ 1.28	\$ 1.28
(9% of the total per ticket fee)		
Total Taxes and Fees.....	\$ 28.49	\$ 34.97
Per Order Fee.....	\$ 4.00	4.00
Total Ticket Price .....	\$ 140.49	\$ 200.97

St. Louis Ticket Prices	
\$115.00 ....	Club Box Infield
\$ 70.00.....	Club Box Outfield
\$ 71.00.....	Field Box Infield
\$ 57.00.....	Field Box Outfield
\$ 56.00.....	Terrace Box Infield
\$ 46.00.....	Terrace Box Outfield
\$ 54.00.....	Upper Box Infield
\$ 39.00.....	Upper Box Midfield
\$ 36.00.....	Bleachers
\$ 39.00.....	Terrace Reserved Preferred
\$ 33.00.....	Terrace Reserved Infield
\$ 29.00.....	Terrace Reserved Outfield
\$ 25.00.....	Upper Reserved Infield
\$ 22.00.....	Upper Reserved Outfield



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## Fun Sample Problems

### Fun Level 3

As a percentage, how much is saved by purchasing the price level 1 concert series for Saturday night rather than 5 individual

#### Rock The House 5 Concert Series Pricing

Price Level	Friday	Saturday
1	\$482.00	\$530.00
2	\$434.00	\$480.00
3	\$240.00	\$285.00
4	\$180.00	\$225.00
5	\$125.00	\$175.00

#### Rock The House Individual Concert Pricing

Price Level	Friday	Saturday
1	\$125.00	\$135.00
2	\$115.00	\$125.00
3	\$ 70.00	\$ 80.00
4	\$ 56.00	\$ 65.00
5	\$ 35.00	\$ 45.00

$$\text{\$135.00} \times 5 = \text{\$675.00} \quad \text{\$675.00} - \text{\$530.00} = \text{\$145.00} \quad \text{\$145.00} / \text{\$675.00} = .2148 = 21.5\%$$

### Fun Level 4

The net biweekly pay on a \$50,000 annual salary is 75.8% of the biweekly gross pay. What percentage of net pay would need to be saved from each paycheck for a year to pay for a Disney 4 days/4 nights vacation for 2 in a garden view room with a regular dining

Port Orleans French Quarter		Theme Park Tickets	
Standard Room.....	\$221.43*	4 Days / 4 Parks .....	\$ 69.75*
Garden View Room.....	\$226.58*	* per person per day including taxes	
River View Room.....	\$235.14*	<b>Dining Plan</b>	
Park View Room.....	\$239.76*	Regular Dining.....	\$ 63.82*
* per night including taxes		Deluxe Dining.....	\$115.08*
		* per person per day including taxes	

$$\text{\$50,000} / 26 = \text{\$1,923.08} \quad \text{\$1,923.08} \times .758 = \text{\$1,457.69 (net biweekly pay)}$$

$$\text{\$226.58} \times 4 = \text{\$906.32}$$

$$\text{\$ 69.75} \times 8 = \text{\$558.00}$$

$$\text{\$ 63.82} \times 8 = \text{\$510.56}$$

$$\text{\$1,974.88} / 26 = \text{\$75.96} \quad \text{\$75.96} / \text{\$1,457.69} = .0521 = 5.2\%$$



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## Fun Sample Problems

### Fun Level 5

A 15% discount is offered on a two person cruise that includes an ocean view balcony suite plus excursions A, B, C, D and F. What

Cruise Pricing	Sea and Shore Excursions (price includes all taxes and fees)
Interior Stateroom ..... \$ 599.00*	A. Live Concert Series ..... \$ 30.00 per person
Ocean View Stateroom..... \$ 679.00*	B. Catamaran Sail & Snorkel..... \$ 59.99 per person
Balcony Stateroom..... \$ 969.00*	C. Atlantis Aquaventure Full Day ..... \$179.99 per person
Ocean View Balcony Suite ..... \$1,459.00*	D. Private Island Beach Day..... \$ 59.99 per person
* Cruise pricing is per person. Taxes, fees and port expenses are \$127.10 per person additional.	E. Parasail Adventure..... \$ 92.99 per person
	F. Snorkel Adventure ..... \$ 64.99 per person
	G. Tropical ATV Adventure..... \$109.99 per person

$$\text{\$1,459.00} \times 2 = \text{\$2,918.00}$$

$$\text{\$ 127.10} \times 2 = \text{\$ 254.20}$$

$$\text{\$ 394.96} \times 2 = \text{\$ 789.92}$$

$$\text{\$3,962.12} \times .85 = \text{\$3,367.80}$$

$$\text{\$3,367.80} / \text{\$4,000.00} = .8419 = 84.2\%$$

# Common Core State Standards for Literacy in History/Social Studies, Science and Technical Subjects

Each of the following anchor standards for reading which is aligned with *cwpubonline* has been marked with a red arrow.

## College and Career Readiness Anchor Standards for Reading

### Key Ideas and Details

- ▶ 1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
- ▶ 2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
- ▶ 3. Analyze how and why individuals, events, or ideas develop and interact over the course of a text.

### Craft and Structure

- ▶ 4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
- ▶ 5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
- 6. Assess how point of view or purpose shapes the content and style of a text.

### Integration of Knowledge and Ideas

- 7. Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.
- ▶ 8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
- 9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

### Range of Reading and Level of Text Complexity

- ▶ 10. Read and comprehend complex literary and informational texts independently and proficiently.

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# Common Core State Standards for Literacy in History/Social Studies, Science and Technical Subjects

Each of the following anchor standards for writing which is aligned with *cwpubonline* has been marked with a red arrow.

## College and Career Readiness Anchor Standards for Writing

### Text Types and Purposes

- ▶ 1. Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.
- ▶ 2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
- ▶ 3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.

### Production and Distribution of Writing

- ▶ 4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- ▶ 5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
- 6. Use technology, including [the](#) Internet, to produce and publish writing and to interact and collaborate with others.

### Research to Build and Present Knowledge

- 7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
- 8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
- ▶ 9. Draw evidence from literary or **informational** texts to support analysis, reflection, and research.

### Range of Writing

- ▶ 10. Write routinely over extended time frames (time for research, reflection, and revision) and **shorter time frames** (a single sitting or a day or two) for a range of tasks, purposes, and audiences.



# Common Core State Standards for Literacy in History/Social Studies, Science and Technical Subjects

Each of the following anchor standards for math which is aligned with ***cwpubonline*** has been marked with a red arrow

## Standards for Mathematical Practice

- ▶ 1. Make sense of problems and persevere in solving them.
- ▶ 2. Reason abstractly and quantitatively.
- 3. Construct viable arguments and critique the reasoning of others.
- ▶ 4. Model with mathematics.
- ▶ 5. Use appropriate tools strategically.
- ▶ 6. Attend to precision.
- ▶ 7. Look for and make use of structure.
- ▶ 8. Look for and express regularity in repeated reasoning.