

THE ELIXIR OF LOVE

The Elixir of Love: Making a Living as a Composer

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Students Will

- Study charts for information
- Complete charts with computations
- Make conversions between different currencies

Getting Ready

- Copies for each student: Activity Worksheets 1 and 2
- Copies for the teacher: Answers for Activity Worksheets 1 and 2
- Pens or pencils
- Calculators
- Instructional Time: One 45-minute class period

Introduction

Tell students "The main reason Donizetti wrote so many operas was because he had to make a living for himself and his family. It is said that he would have rather set bad libretti (to music) than none at all. To make an adequate living, Donizetti, like many opera composers, also had to stage performances of most of his operas in more than one city."

Guided Practice

Give each student a copy of Activity Worksheet 1. Read the directions and have students calculate answers for #1 and #2 on Activity Worksheet 1. Assist students to make the conversions from Lire to Dollars and calculate the answers for #3 and #4.

Independent Practice

Depending on your grade level and time constraints, you may choose to have students work as a whole class, in small groups, or individually. Have students complete Activity Worksheet 1. Students may then complete Activity Worksheet 2. Give time to check answers in class.

Evaluation

1. Were students able to complete Activity Worksheet 1?
2. Did students discuss Donizetti's financial need to write so many operas?
3. Did students complete Activity Worksheet 2?

If Time Allows

Have students consider the economic impact of a composer relocating to another country where the income for each performance of an opera is twice that of one of the samples given. If the income is twice as much for each performance, students may need to consider the cost of living in the new country as it may be higher in that country.

TEKS: Math**Grade 6-12**

(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to: (A) apply mathematics to problems arising in everyday life, society, and the workplace

Correlates

Math, Music

Gardner's Intelligences

Logical/Mathematical

Bloom's Taxonomy

Application, Analysis, Evaluation, Synthesis

Bibliography

Scherer, F. M. Quarter Notes and Bank Notes: The Economics of Composition in the Eighteenth and Nineteenth Centuries. Princeton, New Jersey: Princeton University Press. 2004.

Online Resources

www.oregonstate.edu

THE STORY OF THE OPERA

The villagers are coming in from a long, hot day. They enjoy hearing Adina read from the story of *Tristan and Isolde* and the magic love potion. Nemorino watches from a distance, yearning for even a word from Adina. He approaches her afterwards and professes his love. She shoos him away with brisk (and beautiful) words about the need for fickleness.

The army is in town. Sergeant Belcore enters, intent on storming the heart of Adina, the most beautiful and successful girl in town. She seems impressed. Nemorino is full of disgust and despair.

A cart pulls up carrying the Great Dr. Dulcamara, bearing pills and potions for every kind of ailment. He is most proud of his cure-all elixir. Nemorino approaches him quietly and asks whether he possesses the love potion of Queen Isolde. Absolutely, Dulcamara assures him. He will have damsels fawning over him. But he must wait a day for it to work. (Dulcamara has never heard of Isolde, the potion is a cheap Bordeaux, and the time would allow the Doctor to leave town.) He downs the flask and immediately feels robust enough to ignore Adina the next time he sees her. To get even, she consents to marry Belcore. Nemorino, horrified, begs her to wait another day.

Everyone is assembled for the wedding of Adina and the sergeant. Adina privately murmurs that she's waiting to sign the marriage contract until Nemorino arrives. Nemorino seeks out the doctor to ask for another bottle of the elixir. Dulcamara agrees to wait until he can borrow the money. Belcore strides by, puzzled by Adina's postponement. Nemorino laments that he is penniless. Belcore suggests he join the army and receive the volunteer bonus. Nemorino, jubilant, signs and takes the cash back to Dulcamara for another bottle.

Suddenly the village girls surround Nemorino. He thinks this is the effect of the elixir; he does not yet know that his uncle has died and left him a fortune. Adina has felt responsible for his enlistment, but her guilty feeling turns to jealousy and sadness when she sees him with all the girls. Dulcamara offers her the elixir, but she assures him she can win Nemorino back on her own.

Nemorino was by no means indifferent: During all the confusion he noticed a tear upon Adina's cheek. He is sure she cares for him. Adina approaches Nemorino and shows him that she has bought back his military contract. He feigns indifference, and she finally confesses her love. Belcore struts by, finds them together, and consoles himself by proclaiming that the world is full of women for him. Dulcamara redoubles his boasting: The magical elixir can make poor men into millionaires and can bring true love.

Synopsis by Santa Fe Opera

Name _____ Date _____

The Elixir of Love Math I: Making a Living as a Composer**Activity Worksheet 1**

Directions: Study the sample budget below for a composer maintaining a middle class lifestyle in Donizetti's time. Use the Italian lira (one) and lire (more than one) and the American dollar to answer the following questions.

Sample Annual Budget

Category	Italian Lire	U.S. Dollars
Wife's weekly allowance (55 lire per wk X 52 wks).....	_____	_____
Meals outside the home (18 lire per wk X 52 wks)	_____	_____
Furniture.....	837	_____
Rent (45 lire per month X ____ months).....	_____	_____
Travel.....	486	_____
Coal and wood.....	354	_____
Household help (30 lire per month X ____ months).....	_____	_____
Gifts.....	338	_____
Clothing.....	355	_____
Composing supplies.....	185	_____
Medical.....	224	_____
Music copying.....	112	_____
Legal services.....	50	_____
Entertainment.....	36	_____
Insurance.....	32	_____
Books and newspapers.....	27	_____
Taxes.....	34	_____
Other.....	322	_____
Total.....	_____	_____

1. Calculate the missing amounts in the first column for the Italian lire in the sample budget above.
2. What is the total amount of the household expenses for the Italian lire? _____ lire
3. Complete the second column for U.S. Dollars. If it took 12 Italian lire to equal 1 American dollar, calculate all categories for the sample budget in dollars. What is the total amount in dollars?
\$ _____
4. If one dollar from the time period of the chart equals \$78 today, what would the total budget for one year be in today's dollars?
\$ _____

ANSWER KEY

The Elixir of Love Math I: Making a Living as a Composer

Activity Worksheet 1

Directions: Study the sample budget below for a composer maintaining a middle class lifestyle in Donizetti's time. Use the Italian lira (one) and lire (more than one) and the American dollar to answer the following questions.

Sample Annual Budget

Category	Italian Lire	U.S. Dollars
Wife's weekly allowance (55 lire per wk X 52 wks).....	2,860	\$238.33
Meals outside the home (18 lire per wk X 52 wks).....	936	\$ 78.00
Furniture.....	837	\$ 69.75
Rent (45 lire per month X 12 months).....	540	\$ 45.00
Travel.....	486	\$ 40.50
Coal and wood.....	354	\$ 29.50
Household help (30 lire per month X 12 months)	360	\$ 30.00
Gifts.....	338	\$ 28.17
Clothing.....	355	\$ 29.53
Composing supplies.....	185	\$ 15.42
Medical.....	224	\$ 18.67
Music copying.....	112	\$ 8.33
Legal services.....	50	\$ 4.17
Entertainment.....	36	\$ 3.00
Insurance.....	32	\$ 2.67
Books and newspapers.....	27	\$ 2.25
Taxes.....	34	\$ 2.83
Other.....	322	\$ 26.83
Total.....	8,088	\$674.00

1. Calculate the missing amounts in the first column for the Italian lire in the sample budget above.
2. What is the total amount of the household expenses for the Italian lire? **8,088 lire**
3. Complete the second column for U.S. Dollars. If it took 12 Italian lire to equal one American dollar, calculate all categories for the sample budget in dollars. (*Remind students when dividing the amount of lire by 12 to round up one when there is more than 5 in the hundredths place. Ex. \$2.26666 = \$2.27*)
What is the total amount in dollars? **\$674**
4. If one dollar from the time period of the chart equals \$78 today, what would the total budget for one year be in today's dollars? **\$674.00 (total budget then) X \$78(dollar value today) Total budget for one year in today's dollars: \$52,572.00**

Name _____ Date _____

The Elixir of Love Math I: Making a Living as a Composer**Activity Worksheet 2**

Directions: Find the totals for each of the empty blanks for the income chart. Total the income from each of the two operas, and the total income for opera writing for the year.

Sample Annual Income

Opera A

Honorarium	200	lire
Performance Fees: 27 Performances		
100 lire for each of the first 40 performances (100 X)	_____	lire
75 lire for each additional performance (75 X)	_____	lire
Performance fees in a second city: 33 Performances		
75 lire for each of the first 40 performances (75 X)	_____	lire
50 lire for each additional performance (50 X)	_____	lire
Total Income for Opera A	_____	lire

Opera B

Honorarium	150	lire
Performance Fees: 39 Performances		
100 lire for each of the first 40 performances (100 X)	_____	lire
75 lire for each additional performance (75 X)	_____	lire
Performance fees in a second city: 48 Performances		
75 lire for each of the first 40 performances (75 X)	_____	lire
50 lire for each additional performance (50 X)	_____	lire
Total Income for Opera B	_____	lire

TOTAL ANNUAL INCOME	_____	lire
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If the composer makes the above income for a year, how much money will he have left for investment, savings, and other expenses if his total living expenses are that of **Activity**

Worksheet 1?

Income:	_____	lire
Expenses:	- 8,088	lire
Remaining money	_____	lire

ANSWER KEY

The Elixir of Love Math I: Making a Living as a Composer

Activity Worksheet 2

Directions: Find the totals for each of the empty blanks for the income chart. Total the income from each of the two operas, and the total income for opera writing for the year.

Sample Annual Income

Opera A

Honorarium	200	lire
Performance Fees: 27 Performances		
100 lire for each of the first 40 performances (100 X 27)	2700	lire
75 lire for each additional performance (75 X 0)	0	lire
Performance fees in a second city: 33 Performances		
75 lire for each of the first 40 performances (75 X 33)	2475	lire
50 lire for each additional performance (50 X 0)	0	lire
Total Income for Opera A	5375	lire

Opera B

Honorarium	150	lire
Performance Fees: 39 Performances		
100 lire for each of the first 40 performances (100 X 39)	3900	lire
75 lire for each additional performance (75 X 0)	0	lire
Performance fees in a second city: 48 Performances		
75 lire for each of the first 40 performances (75 X 40)	3000	lire
50 lire for each additional performance (50 X 8)	400	lire
Total Income for Opera B	7450	lire

TOTAL ANNUAL INCOME

12,825 lire

If the composer makes the above income for a year, how much money will he have left for investment, savings, and other expenses if his total living expenses are that of **Activity Worksheet 1?**

Income:	12,825 lire
Living Expenses:	- 8,088 lire
Remaining money	4,737 lire