



CHALLENGING MATH POETICALLY Role Assignments



Group # _____

Please print!

The Math Poet

- 1) Team Manager
- 2) Calculator
- 3) Recorder
- 4) Signaler (flag waver)

Statistically Lyrical

- 1) Team Manager
- 2) Calculator
- 3) Recorder
- 4) Signaler (flag waver)/
Runner

Get the Picture with Graphs!

- 1) Team Manager
- 2) Calculator
- 3) Recorder
- 4) Signaler (flag waver)

EXCEL It!

- 1) Team Manager
- 2) Calculator
- 3) Recorder
- 4) Signaler (flag waver)

SKILL DRILL WARM-UP

ACTIVITY

Name the operation representative of each of the following:

percent

left

reduction

total

more

half

less

twice

off

lower

each

double

Write the equivalents:

20% as a decimal is _____

0.06 as a percent is _____

Total cost of 14 items at \$2 each is _____

\$55,000 reduced by \$3500 is _____

\$5 item marked 30% off saves _____

The Math Poet Score

Sheet

Class: _____ Date: _____

Names: _____ # _____
(Please print.) _____ # _____
_____ # _____
_____ # _____

Score: <u>Possible Points</u>	<u>Group Points Earned</u>	<u>Individual Points Earned*</u>
1. <u>2</u>	—	—
2. <u>3</u>	—	—
3. <u>5</u>	—	—
4. <u>2</u>	—	—
5. <u>3</u>	—	—
6. <u>3</u>	—	—
7. <u>3</u>	—	—
8. <u>4</u>	—	—
9. <u>2</u>	—	—
10. <u>3</u>	—	—
Total: <u>30</u>	—	—

**This column is to be used in Lesson #2.*

Sunshine State Standard: The student...

MA.D.1.4.1: describes, analyzes, & generalizes relationships, patterns, functions using words, symbols, variables, tables, and graphs.

The Math Poet Solutions Worksheet

Problems attempted:

_

_

_

_

_

The Math Poet Cards Template

1

2

3

4

5

6

The Math Poet Cards Template

7

8

9

10



The Math Poet Cards Template

F-Cat-Cat-Cat
Stayin' Alive,
Stayin' Alive
If twice a number
is equal to ten,
why is that number
equal to five?

**(Write an equation
and explain using
algebra logic.)**

#2

Today I went to the
store to buy five
\$1.00 treats. Boy,
was I surprised to
find a sale on
sweets! 20% off was
the deal, so how
much did I pay for
such a steal?

#1

Where, oh, where
has my money gone?
I spent three-
fourths on food
alone. If I
started with a \$20
bill, how much was
left after my fill?

#4

There is a play on
March eight.
Wizard of OZ, I do
believe they say.
If 37 students take
\$5 each for lunch,
how much will it
cost for the whole
bunch?

#3

I baked 15 pies for my
Christmas party. Six
were taken home to be
eaten by Marty. Hardy
took half as many and
said that was plenty,
while Carly, instead of
taking none, took
Marty's number less
one...
How many pies did I
have left when all was
said and done?

#6

A sniper shot peppers
out of Peter's hand.
Every time he nicked a
pepper, Peter picked
10 peppers. The
sniper shot 20 peppers
and Peter picked 10
more. How many
peppers did Peter pick
and how many did the
sniper shoot?

#5

The Math Poet Cards Template

I want to buy a car that will take me very far. \$3000 here, \$1000 there, another \$6000 would put wind in my hair. If I have \$2500 less than that to spend, what is the price of the car I'll be in?

#8

There are 12 inches on my ruler, but 60 inches is the measurement of my cooler. How many rulers do I need to measure my cooler?

#7

I have \$300 to spend and I will share it with a friend. \$100 is what she tends to spend. So how much will I have in the end for me to lend, or spend? Hey, maybe I will start a trend!

#10

When Carly went to the store, she bought grapes and so much more. Two pounds for \$4.60, and hot dogs a plenty; 12 for \$3.25, with buns half the price - of the dogs, that is. How much did she spend, with 6% tax on the end?

#9

On Friday night I have a date, but I need some help before it's too late. We are supposed to dine at nine for a fifty. Two dollars each for desert at ten will be nifty. Something to drink will be five dollars more, and, of course, I must pay fifteen dollars when we walk in the door. A 20% tip I'll have to pay and a hundred dollars is all you gave me today. It looks like I'll have enough, thanks to you, but how much will I have left after all this is through?

#12

I was so sad to find out today, that my boss has decided to decrease my pay. If \$30,000 last year I did make, a reduction of \$4500 will lower my take.

Express the reduction as a percent to understand exactly what is meant!

#11

The Math Poet Problems

These are the problems that are on the playing cards. Make a transparency to be used during the competition and/or duplicate to use during feedback.

1. Today I went to the store to buy five \$1.00 treats. Boy, was I surprised to find a sale on sweets! 20% off was the deal, so how much did I pay for such a steal?

2. F-Cat-Cat-Cat, Stayin' Alive, Stayin' Alive! If twice a number is equal to ten, why is that number equal to five?

3. There is a play on March eight. Wizard of OZ, I do believe they say. If 37 students take \$5 each for lunch, how much will it cost for the whole bunch?

4. Where, oh, where has my money gone? I spent three-fourths on food alone. If I started with a \$20 bill, how much was left after my fill?

5. A sniper shot peppers out of Peter's hand. Every time he nicked a pepper, Peter picked 10 peppers. The sniper shot 20 peppers and Peter picked 10 more. How many peppers did Peter pick and how many did the sniper shoot?

6. I baked 15 pies for my Christmas party. Six were taken home to be eaten by Marty. Hardy took half as many and said that was plenty, while Carly, instead of taking none, took Marty's number less one. How many pies did I have left when all was said and done?

7. There are 12 inches on my ruler, but 60 inches is the measurement of my cooler. How many rulers do I need to measure my cooler?

8. I want to buy a car that will take me very far. \$3000 here, \$1000 there, another \$6000 would put wind in my hair. If I have \$2500 less than that to spend, what is the price of the car I'll be in?

9. When Carly went to the store, she bought grapes and so much more. Two pounds for \$4.60, and hot dogs a plenty; 12 for \$3.25, with buns half the price – of the dogs, that is. How much did she spend, with 6% tax on the end?

10. I have \$300 to spend and I will share it with a friend. \$100 is what she tends to spend. So how much will I have in the end for me to lend, or spend? Hey, maybe I will start a trend!

11. I was so sad to find out today, that my boss has decided to decrease my pay. If \$30,000 last year I did make, a reduction of \$4500 will lower my take.

Express the reduction as a percent to understand exactly what is meant!

12. On Friday night I have a date, but I need some help before it is too late. We are supposed to dine at nine for a fifty. Two dollars each for desert at ten will be nifty. Something to drink will be five dollars more, and, of course, I must pay fifteen dollars when we walk in the door. A 20% tip I'll have to pay and a hundred dollars is all you gave me today. It looks like I'll have enough, thanks to you, but how much will I have left after all this is through?

The Math Poet Problems

Answer Key

1. Today I went to the store to buy five \$1.00 treats. Boy, was I surprised to find a sale on sweets! 20% off was the deal, so how much did I pay for such a steal?

Cost for 5 treats: $5 \times 1.00 = \$5.00$

Savings: $\$5.00 \times .20 = \1.00

Cost: $\$5.00 - 1.00 = \underline{\$4.00}$

2. F-Cat-Cat-Cat, Stayin' Alive, Stayin' Alive! If twice a number is equal to ten, why is that number equal to five?

$x =$ unknown number

Twice means to multiply by 2.

Equation: $2x = 10$

$x = 5$ Divide both sides by 2

3. There is a play on March eight. Wizard of OZ, I do believe they say. If 37 students take \$5 each for lunch, how much will it cost for the whole bunch?

Multiply the cost of each by the number of students: $37 \times 5 = \underline{\$185}$

4. Where, oh, where has my money gone? I spent three-fourths on food alone. If I started with a \$20 bill, how much was left after my fill?

Calculate $\frac{3}{4}$ of the \$20 bill: $\frac{3}{4} \times 20 = \15

Subtract 15 from 20 to determine the amount left: $\$20 - 15 = \underline{\$5}$

5. A sniper shot peppers out of Peter's hand. Every time he nicked a pepper, Peter picked 10 peppers. The sniper shot 20 peppers and Peter picked 10 more. How many peppers did Peter pick and how many did the sniper shoot?

Given: **The sniper shot 20 peppers.**

For each shot (nick) Peter picked 10 peppers: $20 \times 10 = 200$ peppers

After the sniper shot 20, Peter picked 10 more: $200 + 10 = \underline{210}$ peppers

6. I baked 15 pies for my Christmas party. Six were taken home to eat by Marty. Hardy took half as many and said that was plenty, while Carly instead of taking none took Marty's number less one. How many pies did I have left when all was said and done?

Total pies baked = 15

Marty took 6 = -6

Hardy took $\frac{1}{2}$ of Marty's = -3

Carly took Marty's # less 1 = -5

1 pie left

7. There are 12 inches on my ruler, but 60 inches is the measurement of my cooler. How many rulers do I need to measure my cooler?

12 inches = 1 ruler

Divide 60 inches by 12 inches = **5 rulers**

8. I want to buy a car that will take me very far. \$3000 here, \$1000 there, another \$6000 would put wind in my hair. If I have \$2500 less than that to spend, what is the price of the car I'll be in?

Find the total of the money declared: $3000 + 1000 + 6000 = \$10,000$

Subtract the \$2500: $\$10,000 - 2500 = \underline{\$7500}$ **Price of car**

9. When Carli went to the store, she bought grapes and so much more. Two pounds for \$4.60, and hot dogs a plenty; 12 for \$3.25, with buns half the price – of the dogs, that is. How much did she spend, with 6% tax on the end?

Find the cost of the items:

	\$4.60 for the grapes
	3.25 for the hot dogs
	<u>1.63 for the buns (1/2 of \$3.25)</u>
	\$9.48

Calculate the tax: $\$9.48 \times .06 = \0.57

Add tax to cost: $\$9.48 + 0.57 = \underline{\$10.05}$ **Total cost including tax**

10. I have \$300 to spend and I will share it with a friend. \$100 is what she tends to spend. So how much will I have in the end for me to lend, or spend? Hey, maybe I will start a trend!

Subtract the amount to lend from the total to get what is left: $\$300 - 100 = \underline{\$200}$ **Left**

11. I was so sad to find out today, that my boss has decided to decrease my pay. If \$30,000 last year I did make, a reduction of \$4500 will lower my take. Express the reduction as a percent to understand exactly what is meant!

Divide the amount of reduction by the original pay: $\$4500 \div 30,000 = .15$

Change the decimal to percent: $.15 = \underline{15\%}$ **Reduction**

12. On Friday night I have a date, but I need some help before it is too late. We are supposed to dine at nine for a fifty. Two dollars each for desert at ten will be nifty. Something to drink will be five dollars more, and, of course, I must pay fifteen dollars when we walk in the door. A 20% tip I'll have to pay and a hundred dollars is all you gave me today. It looks like I'll have enough, thanks to you, but how much will I have left after all this is through?

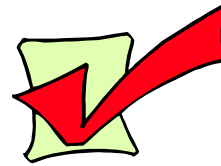
Cost of meal:		\$50.00
Cost of desert:	$2 \times \$2 =$	4.00
Cost of drink:		<u>5.00</u> (This represents drink for 2.)
Total for meal:		\$59.00
20% Tip:	$.20 \times \$59 =$	<u>11.80</u>
Total for meal plus tip:		\$70.80
Plus Cover charge (not tipped):		<u>15.00</u>
Total Cost:		\$85.80

Amount left: $\$100 - 85.80 = \14.20

(It might be interesting to mention to students this calculation did not include any tax.)

The Math Poet

Student Criteria Checklist for Assessment



Name _____

Date _____

Mathematics

The student:

- Demonstrates logical reasoning in problem solving
- Demonstrates accuracy throughout problem-solving process (i.e. no arithmetic errors)
- Demonstrates proper algebraic logic
- Solves all problems correctly
- Includes proper units with answer

Cooperative Learning

The group:

- Provides a clear and precise explanation
- NO WHINING!**

Each member of the group:

- Works well with other members of their group
- Offers encouragement to other members of their group
- Performs assigned role consistently throughout activity
- Stays on task throughout the entire activity
- Completes assigned work within the allotted time period

Reads and follows all directions!