

# MasterMath

6th Grade Quarter 1 Exam key

Name \_\_\_\_\_

Date \_\_\_\_\_

Closed Book; 60 minutes to complete; show units; show work.

CUCC

1. Please convert the fraction to a decimal:

619

fraction	decimal
5 1/3	5.33
1/9	.11

fraction	decimal
21/25	.84
25/21	1.19

2. When you convert 5/6 to a decimal, is it a repeating decimal or a terminating decimal?

619

repeating

3. The formula for the area of a triangle is one-half x base x height ( $1/2 \times b \times h$ ). Find the area of a triangle with a base of 16 cm and a height of 12 cm.

615

96 sq cm

4. You are going on a trip to Mexico, and you want to convert your dollars (d) into pesos (p). Your bank tells you that the exchange rate is 11.5 pesos for one dollar. You have \$500 dollars. How many pesos can you get for \$500? Write a formula, then solve.

615

formula	solution
$d = 11.5p$	5750

5. You are now 54" tall. You have been growing 1/4" per month. Write an expression to predict how tall (H) you will be after x months.

612

$H = 54 + .25x$

6.

You have been adding 5 friends ("F") per month on Facebook. You now have 12 friends. Write an expression to predict how many friends you'll have after X months.

612

$F = 12 + 5X$

7. Solve:  $3^2 - (5 + 2) =$

611

2

8. Will y get larger or smaller as x increases:  $6 - x = y$

611

smaller

9. Complete the table:

611

Expression	Number	Variable	Operations
$2y - 6$	2,6	y	x, -
$3b + 9$	3,9	b	x, +

10. Use compatible numbers to estimate the answer

616  $4/7 \times 300$

Is your estimate higher or smaller than the actual answer?

$602 / 300$

11. You shoot 806 free throws, and you make  $1/4$  of them. Estimate how many free throws you make.

616

12. You have 8 cups of flour. It takes  $1/3$  cups of flour to make a cookie. How many cookies can you make?

618

13.

The table below shows the portion of your allowance you spend on different items. How many times more do you spend on movies than you spend on snacks?

618

Expense	Allowance
movies	$1/4$
snacks	$1/8$
others	$1/32$
music	$3/32$
savings	$1/2$

14. McDougal's Burgers sells quarter pound burgers. They start the day with 75 pounds of hamburger meat. How many burgers will McDougals be able to make?

618

15. Mom throws a party for you and 4 of your friends. She spends \$15 on food. How much does she spend per person (x)?

612

expression	solution
$15 = 5x$	3

16. Write an expression and evaluate.  $x = 3$ ,  $y = 6$

612

x more than the product of a number y and 2.

expression	solution
$2y + x$	15

17. Find the product and simplify

617

18. Your Dad's CD collection has 72 CD's.  $1/3$  of them are by U2. How many U2 CD's does your Dad have?

617

19.  $1/3$ rd of the 45 students in a math class are boys. Among the boys,  $2/3$ rd are taller than 5'. How many of the boys are taller than 5'?

617

10

20. True or False: Does  $A = B$ ?

613

A	B	equal?
$6 + 8$	$8 + 6$	y
$6 - 8$	$8 - 6$	n
$5 + x$	$x + 5$	y

A	B	equal?
$3 / (5 / 1)$	$(3 / 5) / 1$	y
$(8 - 6) - 1$	$8 - (6 - 5)$	n
$3 * x$	$x * 3$	y

21. Simplify the expression:  $8 + 3x + 2x + 4 - 12$ 

613

5x

22. Simplify this expression:  $3(6 - x) + 22(x + 1)$ 

614

40 + 19x

23. Write an expression and simplify: 2 times the sum of a number (x) plus 3

614

2x + 6

Results			
%	?s	Wrong	Concept
100%	7 - 9		Evaluating Expressions
100%	5-6,15-16		Writing Expressions
100%	20-21		Properties of Addition and Multiplication
100%	22-23		Distributive Property
100%	3-4		Use Formulas to Solve Problems
100%	10-11		Estimating with Fractions
100%	17-19		Multiplying Fractions and Mixed Numbers
100%	12-14		Dividing Fractions and Mixed Numbers
#####	1-2		Fraction-Decimal Equivalency
100%		0	Total