Name _____ Date _____

Summer Math 2010

Leaving 6th grade-Entering 7th grade

Every problem from ***each*** worksheet is to be completed with ***all work shown*** from the problems on a separate piece of paper or on the front or back of the worksheets. Answers should be written in the corresponding box. These worksheets are due the first day of school in math class. This will be the first quiz grade for the new school year. The grade will be based on completion and the work shown for the problems.

Solutions are included so that your student may check his/her work after completing the problems. Your child may work through the problems until the correct solution is found, being sure to show all of the correct work along with this solution.

Section 1 — Order of Operations

	Problems:	Answers:
1.	Evaluate the expression. $9 - 3 + 3 - 6$	1.
2.	Evaluate the expression. $60 \div 4 \div 3$	2.
3.	Evaluate the expression. $12 + 6 \times 10$	3.
4.	Evaluate the expression. $84 + 7 + 4$	4.
5.	You buy a used guitar for $45. You then pay $20 for each of 5 guitar lessons. The total cost can be found by evaluating the expression $45 + 20 \times 5$. Is the total cost $145 or $325?	5.

Section 2 — Decimals

	Problems:	Answers:
1.	Find the sum. $6.954 + 12.04$	1.
2.	Find the sum. $3.847 + 13.58$	2.
3.	Find the sum. $2 + 12.99$	3.

4.	Find the sum. $8.2 + 13.28$	4.
5.	Find the difference. $7.89 - 2.73$	5.
6.	Find the difference. $8 - 4.6$	6.
7.	Find the difference. $102.08 - 23.6$	7.
8.	Find the difference. $4.76 - 2.19$	8.
9.	Find the product. 4.70×0.85	9.
10.	Find the product. 3.8×0.82	10.
11.	Find the product 5.131×0.05	11.
12.	Find the product 5.26×88	12.
13.	Find the quotient. $11.2 \div 1.6$	13.
14.	Find the quotient. $0.036 \div 0.18$	14.
15.	Find the quotient. $0.24 \div 1.2$	15.
16.	Find the quotient. $12.8 \div 0.16$	16.
17.	Evaluate $2.6 + r - t$ when $r = 5.94$ and $t = 1.2$.	17.
18.	For your birthday you receive a $25 gift certificate. You want to buy 3 used video games whose prices are $6.79, $5.21, and $6.97. Can you buy all 3 games using the gift certificate?	18.
19.	You buy a pack of 3 trading cards for $2.82. Find the price of each card.	19.

Section 3 Factors and Multiples

Problems: Answers:

1.	Write the prime factorization of 54 using exponents if necessary.	1.
2.	Write the prime factorization of 1300 using exponents if necessary.	2.
3.	Tell whether 70 is prime or composite.	3.
4.	Write all the factors of the number 30.	4.

5.	Write all the factors of the number 50.	5.
6.	Find the greatest common factor of 24 and 44 by listing factors.	6.
7.	Find the greatest common factor of 42 and 30 by listing factors.	7.
8.	Find the greatest common factor of 50, 30, and 10 by listing factors.	8.
9.	Find the least common multiple of the numbers 7 and 21 by listing.	9.
10.	Find the least common multiple of the numbers 6 and 4 by listing.	10.
11.	Find the least common multiple of 6 and 9 by listing.	11.
12.	A class of 18 students is on a field trip at the zoo. The teacher wants to break the class into groups of the same size. Find all the possible group sizes by writing all the factors of 18.	12.
13.	You visit a model train shop that has two working model trains. The trains share a station, but they run on separate tracks. One of the trains returns to the station every 2 minutes. The other returns every 7 minutes. Both trains just left the station. After how many minutes will the trains both return to the station?	13.

Section 4 Fractions

Problems:		Answers:
1.	Write $5\frac{11}{13}$ as an improper fraction.	1.
2.	Write $2\frac{5}{7}$ as an improper fraction.	2.
3.	Write $4\frac{9}{11}$ as an improper fraction.	3.
4.	Write $\frac{31}{9}$ as a mixed number.	4.
5.	Write $\frac{17}{5}$ as a mixed number.	5.
6.	Write $\frac{32}{7}$ as a mixed number.	6.
7.	Write the decimal 0.4 as a fraction in simplest form.	7.
8.	Write the decimal 0.76 as a fraction in simplest form.	8.

9.	Write the decimal 0.52 as a percent.	9.
10.	Write decimal 0.38 as a percent.	10.
11.	Write the fraction $\frac{1}{4}$ as a decimal.	11.
12.	Write the fraction $\frac{3}{5}$ as a decimal.	12.
13.	Write 92% as a decimal.	13.
14.	Write 47% as a decimal.	14.
15.	Write the fraction $\frac{1}{2}$ as a percent.	15.
16.	Write 63% as a fraction in lowest terms.	16.
17.	At one time, 34 out of 100 regions in a country had lighthouses. This can be written as the fraction $\frac{34}{100}$. How do you write this fraction as a decimal?	17.
18.	Each fraction represents the part of the total number of raffle tickets sold by each state in a multi-state raffle. Order the states (according to the fractions) from the greatest to the least. Alaska $= \frac{1}{5}$ California $= \frac{1}{26}$ Montana $= \frac{1}{16}$ Texas $= \frac{1}{15}$	18.
19.	Find the sum and simplify if possible. $\frac{3}{14} + \frac{2}{14}$	19.
20.	Find the sum and simplify if possible. $\frac{4}{11} + \frac{3}{11}$	20.
21.	Find the sum and simplify if possible. $\frac{5}{6} + \frac{4}{5}$	21.
22.	Find the sum and simplify if possible. $\frac{7}{8} + \frac{6}{7}$	22.
23.	Find the sum and simplify if possible. $4\frac{5}{6} + 3\frac{3}{4}$	23.
24.	Find the sum and simplify if possible. $7\frac{3}{4} + 9\frac{2}{9}$	24.

25.	Find the difference and simplify if possible. $\frac{3}{4}-\frac{1}{4}$	25.
26.	Find the difference and simplify if possible. $\frac{5}{8}-\frac{3}{8}$	26.
27.	Find the difference and simplify if possible. $\frac{2}{3}-\frac{1}{5}$	27.
28.	Find the difference and simplify if possible. $\frac{3}{7}-\frac{1}{3}$	28.
29.	Find the difference and simplify if possible. $9\frac{2}{9}-5\frac{5}{9}$	29.
30.	Find the difference and simplify if possible. $8\frac{1}{3}-1\frac{2}{6}$	30.
31.	Before a rough piece of wood can be used in building a house, it needs to be squared off and sanded. During this process, the thickness of a rough piece of wood $\frac{7}{8}$ inch thick is always reduced to $\frac{13}{16}$. How much thinner is the wood now?	31.
32.	Find the product and simplify if possible. $\frac{1}{6}\times\frac{1}{11}$	32.
33.	Find the product and simplify if possible. $9\times\frac{5}{8}$	33.
34.	Find the product and simplify if possible. $\frac{8}{11}\times\frac{1}{7}$	34.
35.	Find the product and simplify if possible. $\frac{4}{7}\times\frac{1}{4}$	35.
36.	Find the product and simplify if possible. $2\frac{1}{3}\times 8\frac{1}{4}$	36.
37.	Find the quotient and simplify if possible. $\frac{7}{8}\div\frac{2}{3}$	37.

38.	Find the quotient and simplify if possible. $\frac{5}{6} \div \frac{4}{7}$	38.
39.	Find the quotient and simplify if possible. $\frac{6}{7} \div 12$	39.
40.	Find the quotient and simplify if possible. $1\frac{3}{7} \div 2\frac{1}{2}$	40.
41.	The winner for class president got $\frac{4}{7}$ of the vote. If 672 students voted, how many students voted for the winner?	41.

Section 5 Integers

	Problems:	Answers:
1.	Find the sum. $-14 + (-7)$	1.
2.	Find the sum. $-2 + (-11)$	2.
3.	Find the sum. $10 + (-3)$	3.
4.	Find the sum. $-13 + 7$	4.
5.	Find the difference. $3 - 6$	5.
6.	Find the difference. $-7 - 9$	6.
7.	Find the difference. $-2 - (-6)$	7.
8.	Find the difference. $7 - (-11)$	8.
9.	Find the product. $-10(7)$	9.
10.	Find the product. $-6(-6)$	10.
11.	Find the product. $2(0)$	11.
12.	Find the product. $3(-9)$	12.
13.	Find the quotient. $12 \div (-4)$	13.
14.	Find the quotient. $\frac{-63}{-9}$	14.
15.	Find the quotient. $(-20) \div (-4)$	15.

16.	Find the quotient. $\frac{84}{-12}$	16.
17.	Atoms, the building blocks of all matter, are made up of protons that each have a charge of 1, neutrons that each have a charge of 0, and electrons that each have a charge of -1. Suppose an atom has 17 protons and 14 electrons. What is its total charge?	17.
18.	Suppose the highest point on a continent is 5,708 meters above sea level and the lowest point is about 402 meters below sea level. What is the difference, in meters, between these elevations?	18.

Section 6 Solving Equations

Problems: Answers:

1.	Solve. Show your steps used to solve. $x + 8 = -66$	1.
2.	Solve. Show your steps used to solve. $x + 6 = -85$	2.
3.	Solve. Show your steps used to solve. $-1 = y - 15$	3.
4.	Solve. Show your steps used to solve. $y - 84 = 5$	4.
5.	Solve. Show your steps used to solve. $-33x = 429$	5.
6.	Solve. Show your step sued to solve. $4x = -52$	6.
7.	Solve. Show your steps used to solve. $\frac{x}{8} = 0.82$	7.
8.	Solve. Show your steps used to solve. $\frac{x}{-3} = -0.2$	8.