

6th Grade Assignment – Week #29

Individual Work:

- No work from the workbook this week.
- Each student should take the assessment test found at the end of this document. Please read the instructions found at the beginning of the test. After the student has taken the test, you (the parent) should send a photo of the test to the teacher or tutor (unless, of course, you are playing the role of tutor).

Group Assignments: Choose any of the below problems to work on either on Tuesday or Thursday

Puzzles!

- 1) *Wishful Banking.* You put 25 cents into a (very generous) bank account that doubles your money every month. How much money do you have after one year? After two years? After five years?
- 2) *Coin Puzzles.* Maria has 40 coins worth \$4.80. How many of each type of coin are there if ...
 - a) she has only quarters and nickels?
 - b) she has quarters, dimes, and nickels, and there are an equal number of quarters and nickels?
- 3) *Number Puzzle.* Twice a smaller number is 5 less than a larger number, and their difference is 11. What are the two numbers?
- 4) *The Race.* A race was held between Abe, Ben, Chuck, Dan and Ed. Find the order in which they finished, given: Dan finished two places below Ed; Ben finished one place below Chuck; and Abe finished in the top three. There were no ties.
- 5) *Kim's Favorite Number.* Kim's favorite number is equal to 867 divided by one-twelfth of her favorite number. What is her favorite number?
- 6) *A Circle of Coins*

There are six identical coins pushed together in two rows as shown on the left, below. The objective is to put them into a circular configuration, as shown on the right, below.



The rules are as follows:

- (1) You can only move one coin at a time;
- (2) When you move a coin, it must not push or move another coin;
- (3) The coin you move must be put into a position such that it touches two other coins.

What is the fewest number of moves in which this is possible?

Notes for the parent/teacher:

- This test should be given at the end of sixth grade.
- The primary purpose of this test is to assess the basic skill level of the whole class, and to determine which students have weak basic skills.
- The student's version of the test (4 pages long, below) should leave plenty of room for student work.
- It may be best to give the first half of this test on one day, and then the second half on the following day.
- The first 20 problems are intended to be mental math and should be read orally by the parent or teacher. For each of these problems, the students should write down only the final answer. The time interval between questions should be about five seconds per question for the easiest questions, and ten seconds per question for the hardest ones.

Mental Math

- | | |
|-----------------|-----------------------------------|
| 1) $8+5$ | 11) 6×9 |
| 2) $7+7$ | 12) 8×7 |
| 3) $38+7$ | 13) 40×6 |
| 4) $12+28$ | 14) 200×40 |
| 5) $11-7$ | 15) $21 \div 3$ |
| 6) $60-3$ | 16) $600 \div 3$ |
| 7) $53-5$ | 17) $8000 \div 200$ |
| 8) $72-68$ | 18) What is $\frac{1}{2}$ of 50? |
| 9) $700 - 8$ | 19) What is $\frac{1}{4}$ of 240? |
| 10) $304 - 298$ | 20) What is $\frac{2}{3}$ of 21? |

Written Addition and Subtraction

- 21) $284 + 349$
22) $67 + 24 + 8 + 43$
23) $728 - 253$
24) $3604 - 764$

Multiplication and Division

- 25) 624×3
26) 83×25
27) 749×286
28) 430×200
29) Use short or long division
 $2718 \div 6$
30) Use long division
 $8242 \div 26$

Fraction and Decimals

- 31) $\frac{5}{8} + \frac{2}{8}$
32) $\frac{1}{4} + \frac{2}{3}$
33) $\frac{7}{8} - \frac{5}{11}$
34) $\frac{5}{8} \times \frac{2}{8}$
35) $\frac{8}{9} \times \frac{7}{8}$
36) $\frac{8}{25} \times \frac{35}{48}$
37) $8 \div \frac{1}{3}$

38) $\frac{2}{3} \div \frac{4}{5}$

39) $5\frac{3}{5} + 1\frac{6}{7}$

40) $2\frac{1}{2} \times 3\frac{2}{5}$

41) $74.1 + 9.24$

42) $30.8 - 4.37$

43) 1.23×0.07

44) 39.2×1.84

45) $265.8 \div 0.06$

46) What is 0.71 as a fraction?

47) What is 0.025 as a reduced fraction?

48) What is $\frac{19}{1000}$ as a decimal?

49) What is $\frac{37}{400}$ as a decimal?

Word Problems

50) A five-foot long string is cut into six equally long pieces. How long is each piece?

51) If Sally earns \$60 per day in her job, how much does she earn in 6 days?

52) At a grocery store, 4 loaves of bread cost \$12. What would then be the cost of 5 loaves of bread?

Answer Key

1) 13

2) 14

3) 45

4) 40

5) 4

6) 57

7) 48

8) 4

9) 692

10) 6

11) 54

12) 56

13) 240

14) 8000

15) 7

16) 200

17) 40

18) 25

19) 60

20) 14

21) 633

22) 142

23) 475

24) 2840

25) 1872

26) 2075

27) 214,214

28) 86,000

29) 453

30) 317

31) $\frac{7}{8}$

32) $\frac{11}{12}$

33) $\frac{37}{88}$

34) $\frac{5}{32}$

35) $\frac{7}{9}$

36) $\frac{7}{30}$

37) 24

38) $\frac{10}{12}$ or $\frac{5}{6}$

39) $7\frac{16}{35}$

40) $8\frac{1}{2}$

41) 83.34

42) 26.43

43) 0.0861

44) 72.128

45) 4430

46) $7\frac{1}{100}$

47) $\frac{1}{40}$

48) 0.019

49) 0.0925

50) 10 inches

51) \$360

52) \$15

Sixth Grade Assessment Test**Student's Version****Mental Math****Written Addition and Subtraction**

1) 11)

21) $284 + 349$

2) 12)

3) 13)

4) 14)

22) $67 + 24 + 8 + 43$

5) 15)

6) 16)

7) 17)

23) $728 - 253$

8) 18)

9) 19)

10) 20)

24) $3604 - 764$

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