6th Grade Group Assignment – Week #4

Individual Homework: See how much you can do on Sheet #4. Note that I will introduce exponents and do more with mixed numbers (fractions) during Wednesday's lecture, so you may want to hold off on those problems until after Wednesday's lecture.

<u>Note for parents</u>: As always, be sure that the students do not look at the following questions until their group meeting begins. I don't want anyone to arrive at the group meeting with a solution or ideas of how to solve it. I want the students to contemplate this together in their groups.

For Group Work on <u>Tuesday</u>

1. *Unit Cost and Rates*
    a) If 10 pounds of bananas cost \$5.20, how much do 8 pounds of bananas cost?
    b) If 3 boxes of cereal cost \$6.90, how much do
        7 boxes of cereal cost?

2. What number is halfway between…
    a) 35 and 83?

    b) 45 and 52?

    c) $7\frac{3}{5}$ and $7\frac{4}{5}$

    d) Extra challenge! $7\frac{5}{6}$ and $10\frac{3}{8}$

For Group Work on <u>Thursday</u>

3. *Form Tracing.* Trace this form without lifting your pencil off the page, retracing any part of the form, or crossing through any line you've already traced.
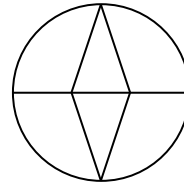
4. *The Chicken, the Fox, and the Sack of Grain.*
    Jeff must carry a chicken, a fox, and a sack of grain across a bridge. However, he can only carry one at a time, and he cannot leave the chicken alone with the grain or leave the fox alone with the chicken. How can he do this?

5. *Coin Puzzle.* Kate has a pocketful of dimes and quarters. How many quarters are there if there are a total of 29 coins and they are worth \$4.85?

6th Grade Math − Sheet #4

Do it in your head.

1) $500 \cdot 6000$

2) $40 \cdot 9000$

3) $56{,}000 \div 70$

4) $55{,}000 \div 1{,}100$

5) $0.007 \cdot 100$

6) $0.007 \div 100$

7) $51.2 \cdot 1000$

8) $72.3 \div 1000$

9) $11 \cdot 45$

10) $11 \cdot 85$

11) $45 \cdot 4$

12) $520 \cdot 4$

13) $0.03 \cdot 0.7$

14) $0.005 \cdot 0.04$

15)
```
      587
      677
      797
      147
      537
      467
      927
    + 317
```

Decimals.

16) `586.3 + 5.72`

17) `70.4 - 6.82`

18) `103 ·107`

19) `104 ·107`

20) `105 ·109`

21) Look at the previous three problems. What is the *trick* for multiplying two numbers that are just over 100?

22) *Cast out nines* to check your answer.
```
    789.2
  x  5.34
```

23) 8^2

24) 2^3

25) 40^2

26) 10^5

Fractions.

27) $\frac{4}{5} + \frac{2}{7}$

28) $\frac{4}{5} - \frac{1}{5}$

29) $\frac{8}{9} \div \frac{6}{7}$

30) $\frac{5}{12} \cdot \frac{8}{15}$

31) $5\frac{7}{8} + 12\frac{2}{3}$

32) $7\frac{7}{8} - 2\frac{5}{8}$

33) $7\frac{5}{8} - 2\frac{7}{8}$

34) $7\frac{3}{8} - 2\frac{4}{5}$

35) Convert to a mixed number.

$\frac{75}{8}$

36) Convert to an improper fraction.

$7\frac{3}{8}$

Short Division.
Leave your answer as a mixed number.

37) $867 \div 5$

38) $62794 \div 7$

Long Division.
Fill in the Blanks.
If necessary, review the example and problems on the previous worksheet.

39) With $3497 \div 81$, we first ask, *"How many times does _____ go into ___?"*

40) With $18457 \div 683$, we first ask, *"How many times does _____ go into ___?"*

41) With $91.35 \div 72.5$, we first ask, *"How many times does _____ go into ___?"*

Now, using your above answers, do the below division problems. Leave your answers as mixed numbers. *You must show your work on a separate piece of paper.*

42) $3497 \div 81$

43) $18457 \div 683$

44) Leave your answer as a decimal.
$91.35 \div 72.5$