6th Grade Assignment – Week #16

Individual Work:

- See how much you can do on Sheet #16 in the workbook.

Group Assignments:

For Tuesday:

1. Which of the following numbers is prime? (Hint: only one of them is prime.)
   700, 149, 343, 165, 219, 221, 315
2. Write down all the factors of each of the above numbers.

- *Puzzles.* Fill in the missing digits (indicated by "?") for these problems.

```
3)  34?
  + ??5
   ?153

4)   ?3
   x 5?
    ??1
 + 41?0
   ????
```

For Thursday:

- *Metric.* Fill in the blank with the correct number.

1) 730 mℓ = _____ ℓ
2) 730 ℓ = _____ mℓ
3) 0.28 km = _____ m
4) 13 m = _____ cm
5) 7 mm = _____ cm
6) 7 mm = _____ km
7) 30 g = _____ kg
8) 30 kg = _____ g
9) 0.004 kg = _____ mg
10) *Puzzle!* Jeff is half as old as Pete. Next year, their ages will add to 35. How old is Jeff?
11) *Puzzle!* Hannah is 8 and her father is 30. How long will it be until Hannah is half her father's age?
12) *Puzzle!* If a gallon of gasoline costs $2.78 per gallon, and Grace buys 13.5 gallons, how much change will she get back if she gives the cashier a 50-dollar bill?

6th Grade Math – Sheet #16

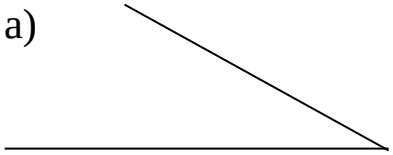
Do it in your head.

1) $25 \cdot 3$
2) $18 \cdot 2$
3) 14^2
4) $13 \cdot 3$
5) 4^4
6) 2^3
7) 2^{10}
8) $\sqrt{810000}$
9) $(0.011)^2$
10) $35 + 2.4$
11) $35 - 2.4$
12) $0.12 \cdot 0.03$
13) $0.12 \div 0.03$
14) $0.03 \div 0.12$
15) $840000 \div 7000$
16) $7.2 \cdot 4$
17) $1.07 \cdot 1.08$
18) $(1.07)^2$
19) $3053 - 2987$
20) $9999 \cdot 6$
21) $64 \cdot 5$
22) $4.6 \cdot 5$
23) $1200 \div 5$
24) $530 \div 5$
25) $1.3 \div 5$

Angle Measure.

26) First estimate the size of the angle (in degrees), and then use a protractor to measure it. You may need to extend the lines (with a ruler) in order to get a good reading with your protractor.

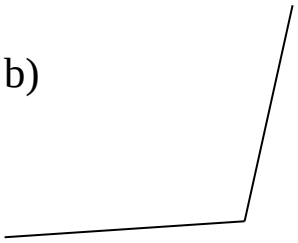
a)



Estimate =

Measurement =

b)



Estimate =

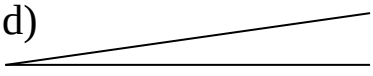
Measurement =

c)

Estimate =

Measurement =

d)



Estimate =

Measurement =

Measurement.

27) Using *metric units*, estimate the measurement of each object.

a) The length of a pencil.

b) The weight of a newborn baby.

c) The volume of a bucket.

d) The distance from one end of town to the other.

e) The thickness of a nickel.

f) The weight of a car.

g) The volume of a teacup.

Divisibility.

28) State whether each of the following numbers is evenly divisible by 2, 3, 4, 5, 9, or 10

a) 75,930

b) 1,839,734

Fractions.

29) Reduce each fraction.

a) $\frac{1040}{1200}$

b) $\frac{216000}{504000}$

c) $\frac{59625}{91125}$

30) What is half of $\frac{5}{16}$?

31) What is half of $\frac{6}{17}$?

32) What is $\frac{5}{16}$ doubled?

33) What is $\frac{6}{17}$ doubled?

Conversions.

Look through each of the below problems and circle all of the ones you can do in your head. After giving the answers of the ones that you circled, do the others by showing your work on a separate sheet. You'll need to divide for some.

34) Convert to a decimal.

a) $\frac{3}{4}$

b) $\frac{5}{11}$

c) $\frac{61}{100}$

d) $\frac{61}{99}$

e) $\frac{3}{20}$

f) $\frac{2}{11}$

g) $\frac{7}{990}$

h) $\frac{3}{1000}$

i) $\frac{7}{25}$

j) $\frac{131}{400}$

k) $\frac{7}{20}$

l) $\frac{97}{135}$

m) $\frac{3}{8}$

n) $\frac{73}{99000}$

35) Convert to a fraction.

Again, circle those that can be done in your head.

Note that some of the repeating decimals can be converted to a fraction quite easily in your head, while others follow the method used by the last few problems of the last two worksheets.

As always, answers should be given as reduced fractions.

a) 0.3

b) $0.\overline{5}$

c) 0.5

d) 0.75

e) 0.8

f) 0.0025

g) $0.\overline{1}$

h) $0.8\overline{3}$

i) $0.\overline{65}$

j) $0.\overline{651}$

k) $0.\overline{007}$

l) $0.00\overline{7}$

m) $0.00\overline{017}$

n) $0.80\overline{5}$

o) $0.03\overline{918}$

p) Challenge!
$0.028\overline{4653}$

Division.

36) Leave your answer as a mixed number.

$83745 \div 7$

Prime Factorization.

37) Write each number as a product of its prime factors.

Example: 700

$700 = 7 \cdot 100$
$700 = 7 \cdot 4 \cdot 25$
$700 = 7 \cdot 2 \cdot 2 \cdot 5 \cdot 5$

So our answer is:

$700 = 2^2 \cdot 5^2 \cdot 7$

a) 56

b) 168

c) 14,625