

## 6<sup>th</sup> Grade Assignment – Week #9

Individual Work: See how much you can do on Sheet #9 in the workbook.

### Group Assignment:

*For Tuesday: Puzzles!*

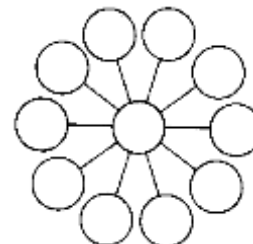
**1. Making Change**

George asked the cashier for change for a dollar and he received 21 coins. How was this done?

**2. Number Wheel**

Use the numbers 1 through 11 to fill in each circle. Arrange it so that for any three circles which fall on a straight line, the sum of the three numbers will always be the same.

Extra challenge: which numbers can possibly be in the middle?



*For Thursday:*

**3. Arithmetic Square.**

Fill in the four boxes so that the four equations are true.

$$\begin{array}{r} \square + \square = 24 \\ + \quad + \\ \square - \square = 12 \\ \parallel \quad \parallel \\ 35 \quad 17 \end{array}$$

**4. Missing-Digit Arithmetic.** Fill in the missing digits (indicated by “?”) for these problems.

a) 
$$\begin{array}{r} ?7 \\ \times 5? \\ \hline 94 \\ + ???0 \\ \hline ????? \end{array}$$

b) 
$$\begin{array}{r} ?3 \\ \times 5? \\ \hline 3?2 \\ + ??50 \\ \hline ??8? \end{array}$$

c) 
$$\begin{array}{r} ?? ? \\ \times ?7 \\ \hline 2??5 \\ + ?3?? \\ \hline 1??7? \end{array}$$

# 6<sup>th</sup> Grade Math – Sheet #9

## Do it in your head.

- 1)  $\sqrt{400}$
- 2)  $70 \div 4$
- 3)  $25 \cdot 2$
- 4)  $2005 - 1987$
- 5)  $0.006 \div 0.002$
- 6)  $15 \cdot 3$
- 7)  $25 \cdot 4$
- 8)  $200^3$
- 9)  $(0.004)^2$
- 10)  $\frac{5}{7} \cdot \frac{3}{11}$
- 11)  $400 \cdot 80$
- 12)  $\frac{3}{5} \div \frac{2}{3}$
- 13)  $\frac{\frac{3}{5}}{\frac{2}{3}}$
- 14)  $0.03 \div 100$
- 15)  $\sqrt{1440000}$
- 16)  $25 \cdot 5$
- 17)  $15 \cdot 2$
- 18)  $0.03 \cdot 1000$
- 19)  $25 \cdot 3$
- 20)  $\sqrt{\frac{9}{400}}$
- 21)  $15 \cdot 4$
- 22)  $3.2 \div 0.08$
- 23)  $980 \cdot 11$

24)  $\frac{3}{10} + \frac{1}{5}$

25)  $13 \cdot 3$

26)  $25^2$

## Convert to decimals.

27) Some of these you should have memorized, for others (20ths, 11ths, 9ths, 99ths, etc.) there are tricks, and for the rest you'll have to divide.

a)  $\frac{1}{4}$

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

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

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

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

f)  $\frac{1}{5}$

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

h)  $\frac{83}{99}$

i)  $\frac{8}{11}$

j)  $\frac{11}{40}$

k)  $\frac{4}{5}$

l)  $\frac{19}{20}$

m)  $\frac{6}{11}$

n)  $\frac{19}{30}$

28) *Cast out nines to check your answer.*

$$\begin{array}{r} 857900 \\ \times 584000 \\ \hline \end{array}$$

## Estimate.

Round the numbers in the problem to one or two significant digits, then estimate the answer.

29)  $8273 + 6187$

30)  $719 \cdot 382$

31)  $39657 - 28053$

32)  $81956 \div 39$

## Divisibility.

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

33) 85,734

34) 85,741,920

**Fractions.**

35)  $\frac{16}{25} + \frac{14}{15}$

36)  $7\frac{4}{5} \div 3\frac{1}{4}$

37)  $\frac{7\frac{4}{5}}{3\frac{1}{4}}$

38)  $657\frac{8}{9} - 652\frac{2}{3}$

39)  $(3\frac{1}{3})^3$

**Unit Cost.**

40) Nine red pens cost \$5.13, and eleven green pens cost \$6.49. Which one has a cheaper unit price?

41) Five pounds of oranges cost \$4.25. What is the cost of seven pounds of oranges?

42) *Short Division.*  
Leave your answer as an exact decimal.

$$76941 \div 800$$

43) *Long Division.*  
Leave your answer rounded to three significant digits.

$$57.2 \div 4.83$$

44) Convert the following improper fraction to *both* a mixed number and an exact decimal.

$$\frac{7671}{37}$$

**Powers.**

45) Calculate.

$$2^3 = \qquad 3^3 =$$

$$2^4 = \qquad 3^4 =$$

$$2^5 = \qquad *3^5 =$$

$$2^6 = \qquad *3^6 =$$

$$*2^7 = \qquad 5^3 =$$

$$*2^8 = \qquad 5^4 =$$

$$*2^9 =$$

$$2^{10} = \qquad *6^3 =$$

$$4^3 = \qquad *7^3 =$$

$$4^4 = \qquad *8^3 =$$

$$4^5 = \qquad *9^3 =$$