Name: _____

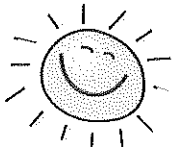
Summer Assignment

This summer, I would like you to complete the following assignments. The topics are as follows:

1. Fractions
   - Simplifying Fractions (16)
   - Adding & Subtracting Fractions (6)
   - Multiplying Fractions (12)
   - Dividing Fractions (12)
2. Decimals
   - Adding & Subtracting Decimals (10)
   - Multiplying Decimals (13)
   - Dividing Decimals (13)
3. Order of Operations (PEMDAS) – (13)
4. Sentence Translation (16)
5. Exponents (13)
6. Prime Factorization (5)
7. Plotting on the Coordinate Grid (5)
8. Percentages (10)
9. Ratios (9)
10. Combining Like Terms (16)
11. Linear Equations (10)
12. Integers (19)

There are 245 questions in the packet. You may complete them all, but **you MUST complete 80% of the problems from each topic**. The number in parenthesis next to the topic is the number of problems you *must* complete on the given page. You may choose the problems that you would like to complete. There are a total of 198 problems to do in 10 weeks. This calculates to approximately 20 problems a week, which figures to 4 problems a day (not including weekends). Fill-out the "Log" ***as you*** complete problems. This will show your progress throughout the summer. Add a comment if you had a problem or issue with any of the sections. This will be counted as your first **QUIZ GRADE** of the year and will show me the type of student that you are likely to be. Please do your best work! Thank you.

Mrs. Stepanian
tstepanian@longhill.org



Summer Assignment Math Log

You need to complete approximately 4 problems a night to stay on track.

Date **Week of:**	**# of problems completed:** ***Remember: 20 problems a week to stay on target***	**Comments:**
June 27		
July 4		
July 11		
July 18		
July 25		
August 1		
August 8		
August 15		
August 22		
August 29		
Total Completed:		

Fractions Worksheet

Simplify the following fractions.

1 a. $\frac{16}{48}$

1 b. $\frac{12}{24}$

2 a. $\frac{5}{30}$

2 b. $\frac{12}{45}$

3 a. $\frac{4}{8}$

3 b. $\frac{6}{12}$

4 a. $\frac{6}{57}$

4 b. $\frac{12}{15}$

5 a. $\frac{20}{35}$

5 b. $\frac{7}{14}$

6 a. $\frac{4}{4}$

6 b. $\frac{8}{32}$

7 a. $\frac{9}{18}$

7 b. $\frac{18}{54}$

8 a. $\frac{13}{26}$

8 b. $\frac{6}{10}$

9 a. $\frac{12}{26}$

9 b. $\frac{4}{12}$

10 a. $\frac{9}{60}$

10 b. $\frac{3}{9}$

Fractions Worksheet

1 a. $\frac{2}{10} - \frac{1}{7} =$	1 b. $\frac{10}{11} - \frac{4}{10} =$
2 a. $\frac{3}{4} - \frac{2}{3} =$	2 b. $\frac{2}{7} + \frac{2}{12} =$
3 a. $\frac{8}{12} + \frac{5}{6} =$	3 b. $\frac{5}{12} + \frac{1}{10} =$
4 a. $\frac{8}{11} + \frac{5}{10} =$	4 b. $\frac{6}{7} + \frac{4}{5} =$

Student Name: _____ Score:

Multiply Fractions and Whole Numbers

$\frac{2}{5} \times 6 =$ ☐ $\frac{3}{4} \times 8 =$ ☐ $\frac{1}{6} \times 10 =$ ☐

$4 \times \frac{5}{7} =$ ☐ $3 \times \frac{1}{3} =$ ☐ $\frac{7}{10} \times 5 =$ ☐

$\frac{6}{11} \times 1 =$ ☐ $2 \times \frac{5}{6} =$ ☐ $5 \times \frac{1}{9} =$ ☐

$\frac{3}{8} \times 12 =$ ☐ $\frac{1}{5} \times 5 =$ ☐ $0 \times \frac{9}{11} =$ ☐

$\frac{4}{7} \times 8 =$ ☐ $3 \times \frac{1}{9} =$ ☐ $7 \times \frac{5}{14} =$ ☐

Student Name: _____ Score:

Dividing Fractions and Whole Numbers

$\frac{2}{3} \div 4 =$ $\frac{6}{9} \div 3 =$ $5 \div \frac{1}{6} =$

$7 \div \frac{7}{9} =$ $\frac{9}{11} \div 36 =$ $12 \div \frac{4}{5} =$

$14 \div \frac{7}{8} =$ $\frac{2}{3} \div 8 =$ $6 \div \frac{1}{2} =$

$1 \div \frac{11}{12} =$ $\frac{10}{13} \div 5 =$ $\frac{7}{9} \div 14 =$

$\frac{5}{8} \div 4 =$ $18 \div \frac{8}{9} =$ $6 \div \frac{4}{5} =$

Name : _____ Score : _____

Teacher : _____ Date : _____

8.78 - 4.79	5.31 - 4.58	9.89 - 4.19	6.17 - 2.52
2.14 +5.21	4.11 +6.73	3.31 - 2.55	4.99 +1.14
7.34 +2.83	6.32 +3.99	8.74 +6.67	9.56 - 1.91

Multiplying decimals by decimals

Grade 6 Decimals Worksheet

Find the product.

1. $0.3 \times 0.3 =$ _____
2. $0.1 \times 0.06 =$ _____
3. $0.3 \times 0.6 =$ _____
4. $0.7 \times 0.7 =$ _____
5. $0.05 \times 0.05 =$ _____
6. $0.02 \times 0.8 =$ _____
7. $0.2 \times 0.07 =$ _____
8. $0.9 \times 0.07 =$ _____
9. $0.8 \times 0.9 =$ _____
10. $0.05 \times 0.04 =$ _____
11. $0.05 \times 0.02 =$ _____
12. $0.7 \times 0.09 =$ _____
13. $0.3 \times 0.5 =$ _____
14. $0.02 \times 0.5 =$ _____
15. $0.06 \times 0.03 =$ _____
16. $0.7 \times 0.02 =$ _____

Student Name: _____ Score:

Divide

(a) $1.68 \div 0.8$	(b) $14.28 \div 4.2$	(c) $20.46 \div 3.3$	(d) $19.32 \div 2.3$
(e) $11.40 \div 1.5$	(f) $9.52 \div 6.8$	(g) $3.04 \div 3.8$	(h) $19.38 \div 5.1$
(i) $32.76 \div 7.8$	(j) $14.56 \div 2.8$	(k) $41.60 \div 6.4$	(l) $15.48 \div 1.8$
(m) $11.28 \div 9.4$	(n) $2.10 \div 0.6$	(o) $16.72 \div 2.2$	(p) $5.28 \div 4.8$

Name: _____ SoftSchools Date: _____

Simplify each expression using the Order of Operations.

1) $13 + [(40 - 1) \div 13]$

2) $45 - 30 + 35 \div 7$

3) $12 - [(4 - 3) \times (1 + 4)]$

4) $11 + (11 \times 10)$

5) $\frac{50 \div 2}{15 - 10}$

6) $\frac{50 \div 2}{20 - 15}$

7) $\frac{32 \div 2}{10 - 8}$

8) $32 + (10 \times 4)$

9) $17 + [(24 - 4) \div 4]$

10) $39 \div 3 + 4 \times 3$

11) $2 + 20 \div 2 - 4$

12) $10 + 20 \div 2$

13) $(3 \times 2) + [(3 \times 8) \div (12 \div 2)]$

14) $\frac{40 \div 10}{4 - 2}$

15) $3 + 15 \div 3$

16) $(111 - 11) \div 50$

Name:_____ Date:_____

Translate each statement to mathematical terms.

1) Earns $8 per hour for x hours

2) Sarah's age, x, decreased by 2

3) The number of students, x, in 6 classes

4) 10 less than 10 times a number, x

5) 2 times a number, b, decreased by 4

6) 10 less than the product of 16 and a number, y

7) Earns $6 per hour for b hours

8) 2 less than 7 times a number, x

9) Earns $13 per hour for x hours

10) The number of students, x, in 4 classes

11) 6 more than the product of 6 and a number, x

12) 9 less than the product of 15 and a number, x

13) Two third as many books, x

14) Sarah's age, x, decreased by 1

15) Sarah's age, y, decreased by 4

16) The number of students, y, in 7 classes

17) 6 less than 7 times a number, c

18) A number, c, divided by 5, increased by 5

19) 12 times a number, x, decreased by 6

20) 3 more than the product of 4 and a number, x

Exponents Worksheet

Solve.

1 a. 6^2

1 b. 9^2

2 a. 9^1

2 b. 0^{10}

3 a. 1^{77}

3 b. 0^{18}

4 a. 10^6

4 b. 2^5

5 a. 1^{71}

5 b. 7^1

6 a. 2^1

6 b. 0^{37}

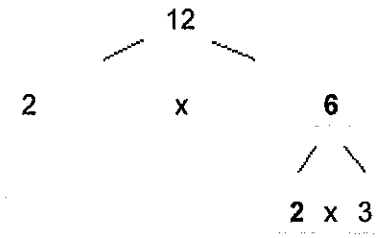
7 a. 1^{78}

7 b. 8^2

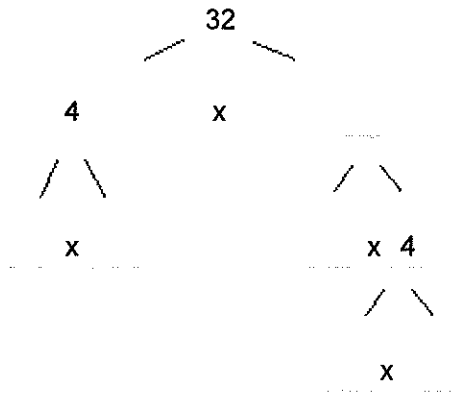
8 a. 5^3

8 b. 7^2

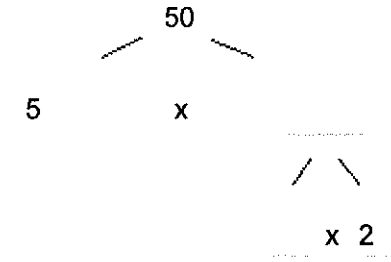
Fill in the missing numbers in the factor trees then write the prime factorization (the first one is done for you):



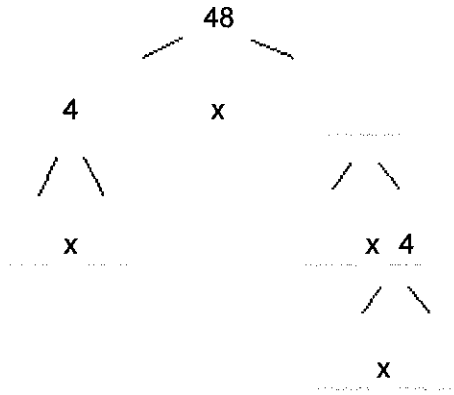
Prime Factorization: **2 x 2 x 3**



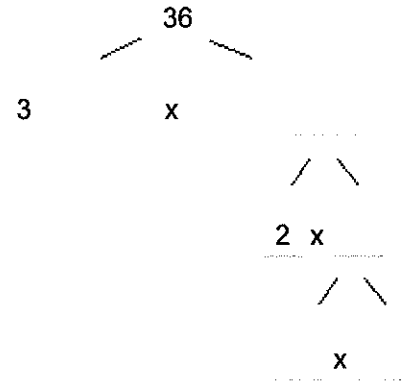
Prime Factorization: _____



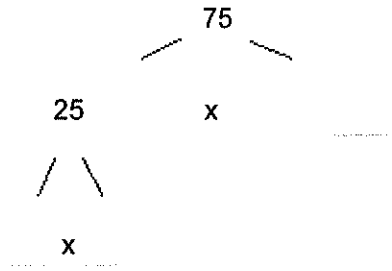
Prime Factorization: _____



Prime Factorization: _____

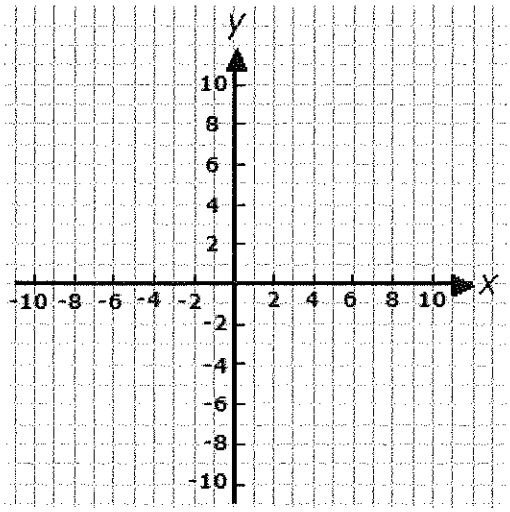


Prime Factorization: _____

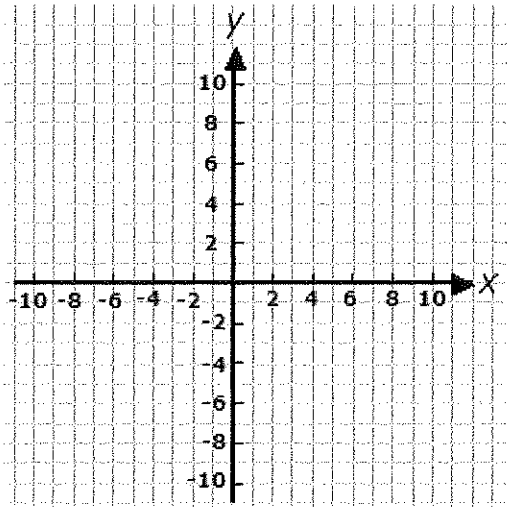


Prime Factorization: _____

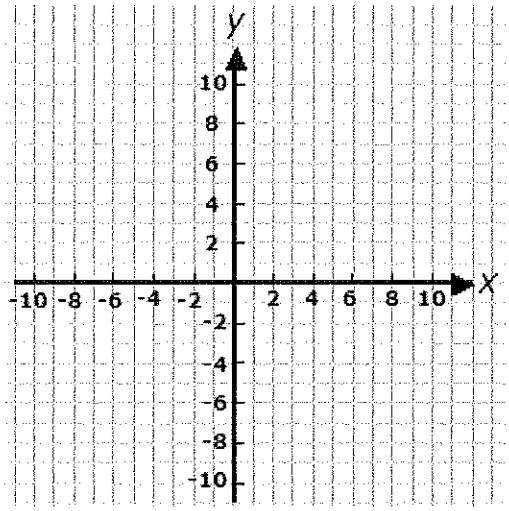
Plot the x-y coordinates shown below:



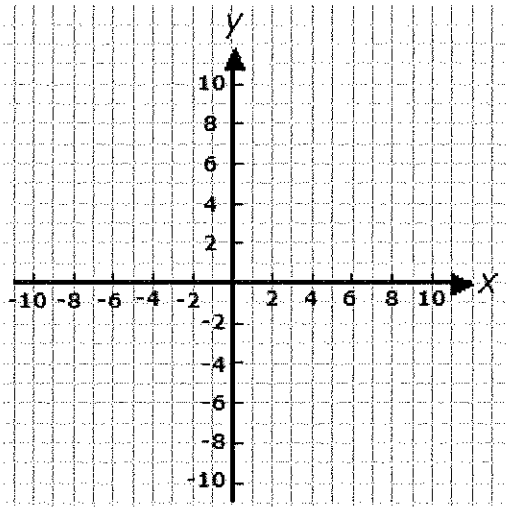
(4 , 5)



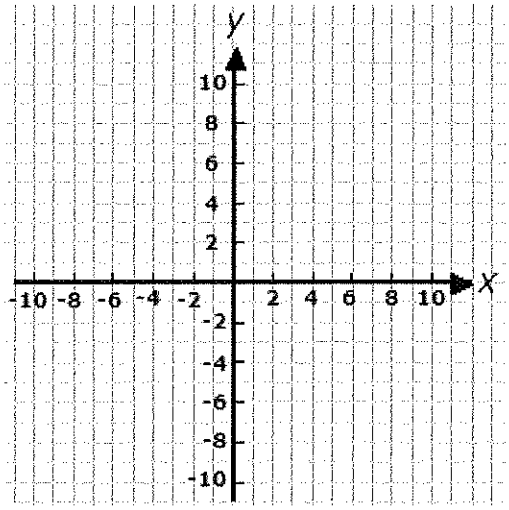
(-9 , 6)



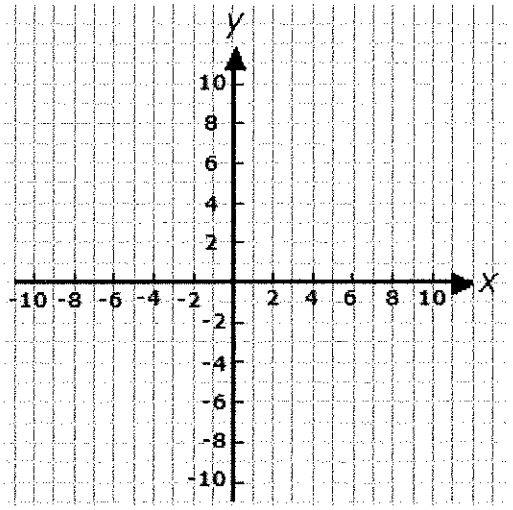
(8 , -8)



(-3 , -7)



(-2 , 4)



(-5 , -6)

Percentage Worksheet

Solve.

1 a. 30 is what percentage of 70?

2 a. What is 30% of 100?

3 a. 10 is what percentage of 20?

4 a. Find 50% of the number 0.

5 a. 30 is what percentage of 90?

6 a. What is 30% of 30?

7 a. How many percent of 30 is 20?

8 a. What is 0% of 60?

9 a. 30 is what percentage of 80?

10 a. Find 0% of the number 60.

11 a. Find 20% of the number 100.

12 a. Find 50% of the number 70.

Equivalent Ratio

A) Check for equivalency.

1) Are 12 : 18 and 4 : 7 equivalent? o Yes o No

2) Are 11 : 22 and 1 : 2 equivalent? o Yes o No

3) Are 8 : 1 and 16 : 4 equivalent? o Yes o No

4) Are 3 : 5 and 6 : 10 equivalent? o Yes o No

B) Find the unknown value in each problem.

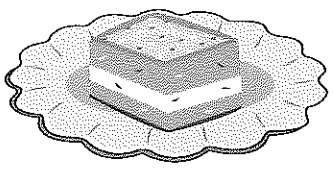
1) $w : 24 = 7 : 6$ 2) $14 : n = 2 : 9$ 3) $d : 5 = 30 : 50$

$w =$ _____ $n =$ _____ $d =$ _____

4) $8 : t = 4 : 3$ 5) $4 : 9 = 16 : z$ 6) $21 : 12 = b : 4$

$t =$ _____ $z =$ _____ $b =$ _____

C) Sugar and flour are mixed in the ratio 3:5 in a sweet recipe. In another recipe, 15 parts of flour are used. If these two ingredients in both recipes are in an equivalent ratio, how many parts of sugar should be used?



_____

Name:_____ Date:_____

Combine like terms for each expression.

1) $20m + 12n - 5m + 13n + 65$

2) $18p + 8q + 2p - 7q$

3) $b + 10 - 5$

4) $7n + 17 + n$

5) $17p + 10 + 52q + 13p - 2q$

6) $13a + 45 + a$

7) $a + 7 + 3b + 3a - 2b$

8) $n + 13 - 5$

9) $11m + 2n + 4m - n$

10) $9q + 57 + 9r + 1q - 3r$

11) $c + 11 - 9$

12) $13a + 4b + 3a - 2b$

13) $12a + 10b - 5a + 17b + 46$

14) $11p + 19 + 2p$

15) $90m + 12n - 5m + 3n + 95$

16) $x + 18 - 4$

17) $19a + 12b + a - 2b$

18) $p + 23 - 4$

19) $14p + 14q + 3p - 1q$

20) $13a + 15 + 4a$

Linear Equations Worksheet

Solve the equations.

1 a. $\frac{n}{3} = 10$	1 b. $s - 1 = 11$
2 a. $5 = 1 + y$	2 b. $7m = 2$
3 a. $7 = z + 6$	3 b. $7 + y = 6 + 12$
4 a. $12 = 10 + a$	4 b. $7 = 6s$
5 a. $11 - 5 = \frac{k}{4}$	5 b. $1 + w = 5$
6 a. $\frac{a}{10} = 7$	6 b. $8 = s + 3$

Math Worksheet

1 a. $16 - 4 =$ _____

1 b. $(-3) - 17 =$ _____

2 a. $2 - (-5) =$ _____

2 b. $(-8) - (-9) =$ _____

3 a. $17 + (-7) =$ _____

3 b. $(-17) + 7 =$ _____

4 a. $13 - 6 =$ _____

4 b. $(-3) - 20 =$ _____

5 a. $(-17) - (-10) =$ _____

5 b. $0 + (-5) =$ _____

6 a. $(-13) - 9 =$ _____

6 b. $(-11) - (-2) =$ _____

7 a. $12 - 13 =$ _____

7 b. $(-12) - (-15) =$ _____

8 a. $(-17) - (-16) =$ _____

8 b. $(-14) - 6 =$ _____

9 a. $(-4) - (-3) =$ _____

9 b. $(-2) - 7 =$ _____

10 a. $(-17) - 11 =$ _____

10 b. $5 - 18 =$ _____

11 a. $3 + (-7) =$ _____

11 b. $14 - (-16) =$ _____

12 a. $(-14) + (-19) =$ _____

12 b. $11 - (-15) =$ _____