

Summer 2008 Reading List: Grade 8 Picks

REQUIRED READING

Please note: You must purchase these novels. Bring both to class the first week of school.

The Diary of Anne Frank by Anne Frank
The Schwa Was Here by Neal Schuesterman

Options for other Reading Choices (choose any one)

HISTORICAL FICTION: CIVIL WAR

**The Red Badge of Courage* by Stephen Crane
Across Five Aprils by Irene Hunt

WORLD WAR II

European Theater:

Soldier X by Don Wulffson
Under a War-Torn Sky by L.M. Elliott

Japanese Theater:

Eyes of the Emperor by Graham Salisbury

Holocaust:

The Hiding Place by Corrie Ten Boom
**Night* by Elie Wiesel
**I Have Lived a Thousand Years: Growing Up in the Holocaust* by Livia Jackson-Britton

Homefront:

The Summer of My German Soldier by Bette Greene
On the Wings of Heroes by Richard Peck

Japanese Internment:

Weedflower by Cynthia Kadohata

ADVENTURE

**The Call of the Wild* by Jack London
Hatchet by Gary Paulsen
The Light in the Forest by Conrad Richter
**Treasure Island* by Robert Louis Stevenson

CLASSIC/CONTEMPORARY FICTION

**The Chosen* by Chaim Potok
**To Kill a Mockingbird* by Harper Lee
The Secret Life of Bees by Sue Monk Hood

FANTASY/SCIENCE FICTION

The Sword and the Stone by T. H. White
The Hobbit by J.R.R. Tolkien
Fahrenheit 451 by Ray Bradbury

I highly recommend that you choose one of the books marked with an asterisk as those will be most useful in terms of preparing you for the literature you will be reading as part of the 8th grade curriculum, but I will leave those decisions up to you. Log your choices on the Reading Achievement tally sheet and ask your parents to sign the log to verify your reading. I will be checking signatures in August.

A WORD TO THE WISE: Consider buying your books at a used bookstore instead of using the library. The library is, of course, great, but you will be vying with many other students for borrowing privileges of a small pool of books. Bookman's is a good choice, especially for Newberry winners and older titles. This is just a suggestion.....



THE HISTORY OF THE UNITED STATES

CHAPTER I

The first part of the history of the United States is the history of the discovery and settlement of the continent.

The discovery of the continent was made by Christopher Columbus in 1492.

The first settlement was made by the Spaniards in 1492.

The first English settlement was made by the Pilgrims in 1620.

The first American revolution was the American Revolution of 1776.

The first American war was the American Revolutionary War of 1775-1781.

The first American constitution was the Constitution of 1787.

The first American president was George Washington.

The first American state was the State of New York.

The first American city was New York City.

The first American university was the University of the South.

The first American newspaper was the Pennsylvania Gazette.

The first American book was the Declaration of Independence.

The first American ship was the USS Constitution.

The first American road was the National Road.

The first American bridge was the Bix Creek Bridge.

The first American canal was the Erie Canal.

The first American railroad was the Baltimore and Annapolis Railroad.

The first American telegraph was the Morse Code.

The first American steam engine was the Newcomen Engine.

The first American factory was the Lowell Mills.

The first American shipyard was the Boston Navy Yard.

The first American bank was the Bank of North America.

The first American stock exchange was the New York Stock Exchange.

The first American newspaper was the Pennsylvania Gazette.

The first American book was the Declaration of Independence.

The first American ship was the USS Constitution.

The first American road was the National Road.

The first American bridge was the Bix Creek Bridge.

The first American canal was the Erie Canal.

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Principal's Reading Achievement Award Tally Sheet 08-09

BR/SR

Title

Author

Parent initials

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

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21. _____

22. _____

23. _____

24. _____

25. _____

The first part of the report deals with the general situation in the country. It is noted that the economy is still in a state of depression, and that the government has been unable to carry out its program of reconstruction. The report then discusses the various causes of the depression, and the measures that have been taken to deal with it. It is pointed out that the government has been unable to raise enough money to carry out its program, and that it has had to resort to borrowing from foreign countries. The report also discusses the situation in the various states, and the measures that have been taken to deal with the depression in each state.

The second part of the report deals with the situation in the various states. It is noted that the situation is generally similar in all states, with the economy in a state of depression and the government unable to carry out its program of reconstruction. The report then discusses the various causes of the depression in each state, and the measures that have been taken to deal with it. It is pointed out that the government has been unable to raise enough money to carry out its program, and that it has had to resort to borrowing from foreign countries. The report also discusses the situation in the various states, and the measures that have been taken to deal with the depression in each state.

The third part of the report deals with the situation in the various states. It is noted that the situation is generally similar in all states, with the economy in a state of depression and the government unable to carry out its program of reconstruction. The report then discusses the various causes of the depression in each state, and the measures that have been taken to deal with it. It is pointed out that the government has been unable to raise enough money to carry out its program, and that it has had to resort to borrowing from foreign countries. The report also discusses the situation in the various states, and the measures that have been taken to deal with the depression in each state.

The fourth part of the report deals with the situation in the various states. It is noted that the situation is generally similar in all states, with the economy in a state of depression and the government unable to carry out its program of reconstruction. The report then discusses the various causes of the depression in each state, and the measures that have been taken to deal with it. It is pointed out that the government has been unable to raise enough money to carry out its program, and that it has had to resort to borrowing from foreign countries. The report also discusses the situation in the various states, and the measures that have been taken to deal with the depression in each state.

The fifth part of the report deals with the situation in the various states. It is noted that the situation is generally similar in all states, with the economy in a state of depression and the government unable to carry out its program of reconstruction. The report then discusses the various causes of the depression in each state, and the measures that have been taken to deal with it. It is pointed out that the government has been unable to raise enough money to carry out its program, and that it has had to resort to borrowing from foreign countries. The report also discusses the situation in the various states, and the measures that have been taken to deal with the depression in each state.

Math Packet

Summer Exercises

Incoming 8th Grade

Complete all workbook pages; some instructional material has been included in case there are any questions. Please show all work, if there is not enough room on the worksheet, please do your work on a separate sheet of paper and attach to package.

1. Decimal Review (2)
2. Order of Operations (1)
3. Adding and Subtracting Integers (2)
4. Substitution (1)
5. Problem Solving (1)
6. Simplifying Expressions (1)
7. Solving Equations (3)
8. Combine Like Terms (1)
9. Scientific Notation (1)
10. Solving inequalities (2)
11. Ratios (1)
12. Percents (2)
13. Plotting points (1)
14. Slope (1)
15. Angles (1)
16. Logic Problem (1)

Decimal Points Everywhere

Can you find the decimal point in each of these answers? This crossword puzzle is sure to sharpen your skills and point you toward success with multiplication and division of decimals.

The crossword puzzle grid contains the following numbers and pre-filled digits:

- 1: 3 6 . 5 8
- 3: [Empty]
- 4: [Empty]
- 5: [Empty]
- 6: [Empty]
- 7: [Empty]
- 8: [Empty]
- 9: [Empty]
- 10: [Empty]
- 11: [Empty]
- 12: [Empty]

Find the product or quotient and write the answer in the crossword puzzle. The decimal point will occupy a square. The first one has been done for you.

ACROSS

- $5.9 \times 6.2 = \underline{36.58}$
- $3.3 \times 3.8 = \underline{\hspace{2cm}}$
- $28.2 \div 6 = \underline{\hspace{2cm}}$
- $19.6 \div 2 = \underline{\hspace{2cm}}$
- $162.6 \div 6 = \underline{\hspace{2cm}}$
- $49.2 \div 6 = \underline{\hspace{2cm}}$
- $87.03 \div 3 = \underline{\hspace{2cm}}$
- $27.2 \div 2 = \underline{\hspace{2cm}}$

DOWN

- $6.7 \times 5.1 = \underline{\hspace{2cm}}$
- $26.4 \div 3 = \underline{\hspace{2cm}}$
- $8.1 \times 2.2 = \underline{\hspace{2cm}}$
- $2.14 \times 2 = \underline{\hspace{2cm}}$
- $4.8 \times 1.9 = \underline{\hspace{2cm}}$
- $36.4 \div 4 = \underline{\hspace{2cm}}$
- $1.4 \times 1.2 = \underline{\hspace{2cm}}$
- $22.2 \div 6 = \underline{\hspace{2cm}}$

Problems with Decimals

1. Jim's gas credit card bill was \$80.97 for June, \$41.35 for July and \$65.08 for August. What were his total charges for the summer?
2. One cup of hot chocolate can be made with .18 ounces of hot chocolate mix. How many cups can be made from a 6.48 ounce canister of mix?
3. Karl's car payments are \$215.37 per month for the next three years. What will be the total amount he will pay for his car?
4. The dress Sally wants cost \$85.15. If the price was reduced by \$12.78, how much will she pay?
5. Melissa went to the mall and noticed that the price of a coat she wanted was cut in half! The original price was \$58.22. What is the sales price?
6. Tyler decided that he wanted a dog. He went to the pet store and bought one for \$42.95. Tyler also bought three bags of food for \$12.55 a bag. How much did Tyler spend altogether?
7. Christopher decided to make his grandmother a birdhouse instead of buying her one. The materials for the birdhouse totaled \$21.99, the cost of a new birdhouse is \$37.23. How much did Christopher save?
8. Jim thinks that snow skiing looks like lots of fun. He decided he wants to try it. First he needs equipment. He bought a pair of skis for \$129.78, a pair of boots for \$62.22, poles for \$12.95, a hat for \$2.50, a coat for \$49.95, ski pants for \$27.50 and gloves for \$11.25. How much did Jim spend altogether?

Order of Operations

When solving an equation, be sure to follow the priority pyramid.

-
1. Parenthesis
 2. Exponents
 3. Multiplication & Division
 4. Addition & Subtraction

$$3 + (3^2 + 9) \div -3 - 1 = 3 + (9 + 9) \div -3 - 1 = 3 + 18 \div -3 - 1 = 3 + -6 - 1 = -4$$

Solve the following.

1. $(17 - 9) + 5$

2. $3 \cdot 5 + 9 \cdot 7$

3. $36 \div 9 - 8 + 21 \div 3$

4. $12 \div (3 - 7) + 7$

5. $8 - 4 \cdot 5(2 - 2) + 3$

6. $12 \div (3 + (6 + 3))$

7. $9(3 \div 3) + 4(-5 \cdot 9) \div 3$

8. $5(9 - 8) \cdot 6 + 5 - 3$

9. $3 - (6 \cdot 6) - -3 \cdot 0$

11. $\frac{8^2 - 13}{(4 + 9) + 4}$

12. $\frac{3^2 - 5 \cdot 7 - 4^2}{(-4 - 9 - 12) + 4}$

13. $\frac{(5 - 9)^2 + 2}{(7 - 8)^2 \cdot 3^2}$

14. $\frac{5 \cdot 6 - (3 + 4)}{-2^2 - 2^2 + 3^2}$

15. $\frac{3^2 - 10}{4^2 - 12}$

16. $\frac{3^2 - 1 + 2^2}{3 + 10 - 19 + 32}$

17. $\frac{4 + 2 \cdot 3 + 4 - 3}{2^2 \cdot 3^2 - 3}$

18. $3 \cdot (0 - 7) + 8 \div 2^2$

19. $4^2 + 3^2 - 6^2$

Adding and Subtracting Integers

1. $-6 + -8 =$

13. $-23 - -28 =$

2. $-10 - 3 =$

14. $0 - 31 =$

3. $-14 + 20 =$

15. $-40 - 35 =$

4. $31 - -9 =$

16. $73 + -19 =$

5. $-17 + 9 =$

17. $-231 - -231 =$

6. $-8 - -27 =$

18. $-107 + -293 =$

7. $-33 - 36 =$

19. $52 + -41 - 60 =$

8. $19 + -32 =$

20. $-85 - -106 + 18 =$

9. $112 - -52 =$

21. $81 - 165 - -75 =$

10. $8 - -7 =$

22. $-16 + 312 + -621 =$

11. $24 + -24 =$

23. $-121 + -632 - -11 =$

12. $508 - 678 =$

24. $-553 - -632 + -85 =$

Mixed Practice with Integers

1. $-41 + -125 =$

13. $\frac{-185}{5} \cdot -4 =$

2. $79 - 88 =$

14. $76 - 19 + -60 =$

3. $-3 \cdot -4 =$

15. $17 - -12 - 22 =$

4. $\frac{-125}{5} =$

16. $100 \cdot -4 \cdot 40 =$

5. $19 \cdot -24 =$

17. $\frac{54}{-9} + \frac{33}{11} + \frac{24}{8} =$

6. $\frac{-123}{41} =$

18. $-51 \div 17 =$

7. $82 + -95 =$

19. $4 - 8 + -9 =$

8. $27 - -46 =$

20. $-\frac{98}{49} \cdot -10 =$

9. $-31 - -32 =$

21. $(256 \div -16) \cdot -3 =$

10. $\frac{-825}{-33} =$

22. $(-18 - -26 + -13) \cdot -2 =$

11. $-34 + 52 + -18 =$

23. $(202 + -196 - 321) \div -5 =$

12. $14 \cdot -12 \cdot 3 =$

24. $(\frac{-575}{23} - 18) \cdot -11 =$

Substitution**Substitute and simplify.**

$x = 2, y = 9, z = -5$

1. $x + y + z =$

6. $(y + z)^3 =$

2. $8x + 3z =$

7. $3z + xy =$

3. $4y + 3xz =$

8. $(x + y + z)^2 =$

4. $xyz \div 10 =$

9. $(x + y)^2 =$

5. $2(y + z) =$

10. $(x - z) + y =$

Substitute and simplify.

$w = -6, x = 4, y = 3, z = -8$

1. $wx + yz =$

6. $5(w + x) + 4(y + z) =$

2. $2w + 3z - xy + z^3 =$

7. $w^2 - x^2 =$

3. $y(z + x) =$

8. $(xy)^2 - 2wz =$

4. $(w + x + y)^3 =$

9. $wz - 4xy =$

5. $(z - w)^3 =$

10. $w + (x + y + z)^2 =$

Problem Solving

The sum of three times a number and 45 is 67. Find the number.

$$3x + 45 = 66$$

$$3x + 45 - 45 = 66 - 45$$

$$3x = 21$$

$$x = 7 \quad \text{The number is 7.}$$

Write an equation for each word problem and solve it.

1. The sum of 5 times a number and -11 is -16 . Find the number.

Equation _____

Solution _____

2. The sum of four times a number and 3 is -13 . Find the number.

Equation _____

Solution _____

3. 5 times the sum of a number and 2 is 35. Find the number.

Equation _____

Solution _____

4. 3 times the sum of a number and negative 2 is -15 . Find the number.

Equation _____

Solution _____

5. Six times the difference of a number and 9 is 42. Find the number.

Equation _____

Solution _____

6. The sum of eight times a number and 3 is 59. Find the number.

Equation _____

Solution _____

7. Twelve times the sum of a number and -8 is 36. Find the number.

Equation _____

Solution _____

8. The sum of seven times a number and 11 is 81. Find the number.

Equation _____

Solution _____

Simplifying Expressions

Distributive Property

$$3(x + 2y) = 3x + 3 \cdot 2y$$

$$= 3x + 6y$$

1. $-7(a + b) =$

6. $3(2a - 8b) =$

2. $x(y - 4) =$

7. $2x(3y + -6) =$

3. $-\frac{2}{3}(c - 12) =$

8. $7(-5x + 8z) =$

4. $-8\left(\frac{r}{2} + 6\right) =$

9. $-5y(6z - 10) =$

5. $y(-16 + 2x) =$

10. $-3x(7 + 8y) =$

Combining Like Terms

$$6m - 4m + 3p = (6 - 4)m + 3p$$

$$= 2m + 3p$$

same variable

1. $9y + 6y - 2 =$

6. $4a + 7 + 3a - 8 - 3a =$

2. $25x - x + 2y =$

7. $16x + -18y + 10x - 7y =$

3. $4a + 8b + 11a - 10b =$

8. $6c - 8ab + 9c - 10 =$

4. $13xy + 18xy - 20xy =$

9. $18ab + -6a + -7b + 26ab + -7b =$

5. $-2m + 16 - 13m =$

10. $5x - 3x + 2xy + 31x + -18xy =$

Solving Equations with Two Operations

$$2y - 7 = -29$$

$$2y - 7 + 7 = -29 + 7$$

$$2y = -22$$

$$\frac{2y}{2} = \frac{-22}{2}$$

$$y = -11$$

1. $13 + -3p = -2$

7. $-7r - 8 = -14$

2. $\frac{-5a}{2} = 75$

8. $\frac{4y}{3} = 8$

3. $6x - 4 = -10$

9. $16 + \frac{x}{3} = -10$

4. $9 = 2y + 9$

10. $\frac{-4z}{5} = -12$

5. $-10 + \frac{a}{4} = 9$

11. $-22 = 3s - 8$

6. $17 = 5 - x$

12. $-\frac{a}{6} - 31 = 64$

Solving Equations with Negative Variables

$$\frac{-k}{6} + 1 = -5$$

$$\frac{-k}{6} + 1 - 1 = -5 - 1$$

$$\frac{-k}{6} \cdot 6 = -6 \cdot 6$$

$$-k = -36$$

$$k = 36$$

1. $-8 - y = 22$

7. $-82 = -a$

2. $18 = -k + 3$

8. $\frac{-b}{3} + 50 = 100$

3. $4 - \frac{x}{5} = -16$

9. $-6 - x \frac{1}{9} = -18$

4. $-x - 15 = -15$

10. $-3z + 5 = 38$

5. $-z = 11$

11. $-a \frac{1}{2} + 12 = -9$

6. $-28 = \frac{-y}{4} - 12$

12. $-5y - 7 = 52$

Mixed Practice

1. $4x - 7 = 2x + 15$

11. $6a + 9 = -4a + 29$

2. $-4 = -4(f - 7)$

12. $-22 = 11(2c + 8)$

3. $5x - 17 = 4x + 36$

13. $-10p - 14 = 9p + 17$

4. $3(k + 5) = -18$

14. $-45 = 5\left(\frac{2a}{5} + -3\right)$

5. $y + 3 = 7y - 21$

15. $16z - 15 = 13z$

6. $-3(m - 2) = 12$

16. $36 + 19b = 24b + 6$

7. $18 + 4p = 6p + 12$

17. $144 = -16(3 + 3c)$

8. $-8\left(\frac{a}{8} - 2\right) = 26$

18. $11h - 14 = 7 + 14h$

9. $-3k + 10 = k + 2$

19. $-3\left(\frac{2j}{3} - 6\right) = 32$

10. $22 = 2(b + 3)$

20. $-43 - 3z = 2 - 6z$

What's Not to Like?

Simplify each expression by combining like terms. Circle the expression in each problem that does not belong. Place the letter above the problem number below.

1. A. $5t + 3r + 9t - 10r$ E. $r + t - 8r + 13t$ I. $-r + 4t + 10t + 8r$
2. D. $12x - 3y + x + 2y$ E. $3(4x - 3y) + x + 3y$ F. $4(4x - 2y) - 3x + 7y$
3. E. $4(y - 7x) - y$ I. $30x - (2x)$ O. $7(4x + y) + 7y$
4. U. $6(x - y) - 3(3x + y)$ V. $3(3x - y) - 6y$ W. $4x + y - 7x - 10y$
5. Q. $3(r - 1) - 4r + 5$ X. $2(3 - 2r) - 4(2 - r)$ Z. $-r + 7 + 3r - 9 - 2r$
6. L. $8(x + y) + 3(x + y)$ M. $10(x + y) + x + y$ N. $9(x + y) - 2(x + y)$
7. A. $3(2b - a) - (2a - b)$ B. $3(a + 2b) - (b + 2a)$ C. $2(a + 2b) - (a - b)$
8. I. $5(a - b) - 2(a - b) + 8(a - b)$ U. $6(a - b) - 4(a - b) + (a - b)$ O. $(a - b) - (a - b) + (a - b)$
9. R. $3(x - y) - 2(y - x)$ S. $2(x - y) - 3(y - x)$ T. $3(y - x) - 2(x - y)$
10. L. $4(x + 2(5xy - x))$ M. $4(x + 5(3xy + x))$ N. $2(3x + 3(10xy + 3x))$

Two expressions in each problem are

2 5 8 1 4 7 10 3 6 9

Scientifically Speaking

Scientific notation is used to write very large and very small numbers. A number in scientific notation is the product of a number between 1 and 10 and a power of 10.

Examples: $45,000,000 = 4.5 \times 10^7$ $0.00000625 = 6.25 \times 10^{-6}$

write each measurement in scientific notation; then write the problem letter above the value of the exponent to complete the statement at the bottom of the page.

- C The population of China is greater than 1,250,000,000.
- E Scientists at Oak Ridge National Laboratory have sent an electric current of 2,000,000 amperes/cm² down a wire.
- E The diameter of an electron is 0.0000000000011 cm.
- E In an election in India, more than 343,350,000 people voted.
- E The Earth's mass is 5,980,000,000,000,000,000 metric tons.
- G The Greenland-Canada boundary is about 1,700 miles long.
- I The isotope lithium 5 decays in 0.000000000000000000000044 seconds.
- I The isotope tellurium 128 has a half-life of 1,500,000,000,000,000,000,000 years.
- M A microbe strain of H39 has a diameter of 0.0000003 m.
- N A nugget of platinum found in 1843 weighed 340 ounces.
- N In 1996 the United States national debt was \$5,129,000,000,000.
- O A Saudi Arabia oil field contains about 82,000,000,000 barrels.
- P The fastest planet Mercury travels at 107,000 mph.
- R Sales of the record "White Christmas" exceeded 30,000,000.
- V In 1973, a vulture flying at 37,000 ft. collided with an aircraft.
- X The wavelength of an X ray is about 0.0000000015 m.

What the decimal point said about scientific notation:

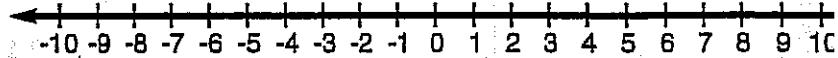
"It's a _____!"

-7 10 4 -22 2 3 6 -9 5 -12 7 24 8 12 9 21

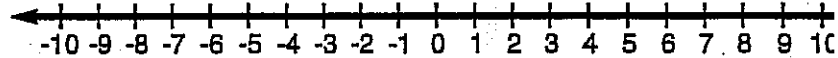
Practice Solving Inequalities

Solve each inequality and graph its solution set.

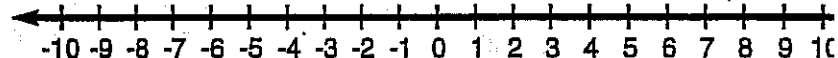
1. $12d < d + 11$



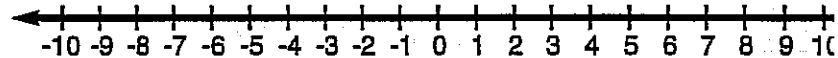
2. $5x \geq -20$



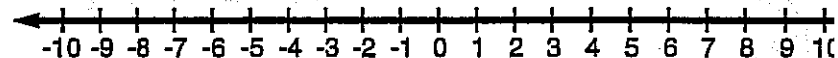
3. $14h \leq 126$



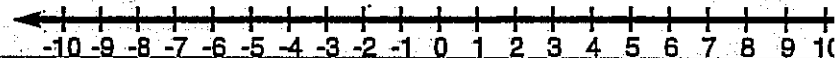
4. $11 \leq 6y - 13$



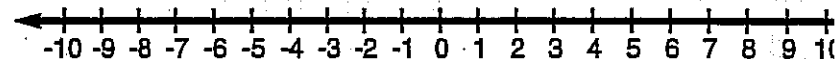
5. $6x - 4 > 2(x - 6)$



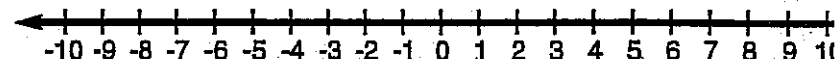
6. $-13t > 52$



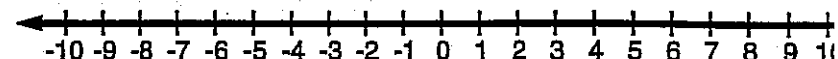
7. $r + 15 \geq 9$



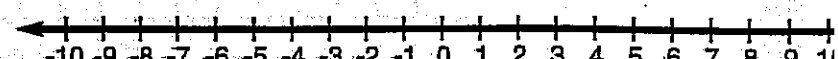
8. $4a - 3 \leq -27$



9. $14 + 3x > 6x - 7$



10. $\frac{a}{4} + 3 \leq 5$



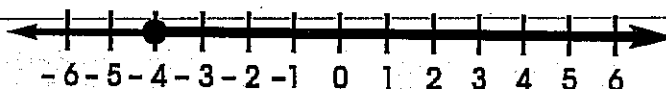
Solving Inequalities with More than One Operation

$$-14x + 8 \leq 64$$

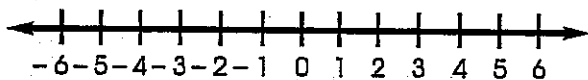
$$-14x + 8 - 8 \leq 64 - 8$$

$$\frac{-14x}{-14} + 8 \leq \frac{56}{-14}$$

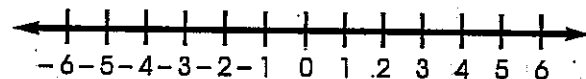
$$x \geq -4$$



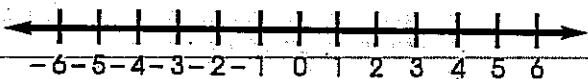
1. $7x - 1 < 20$



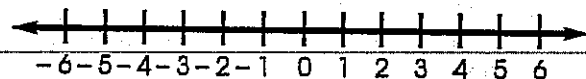
6. $-17 > -7x - 45$



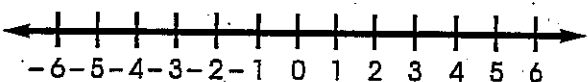
2. $-4 + 2z \geq -8$



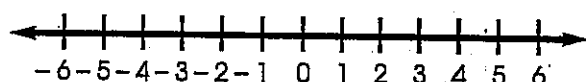
7. $-5(2t - 1) \leq 5$



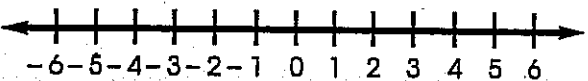
3. $-6x - 9 \geq -3$



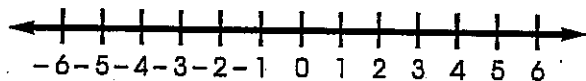
8. $8 - 4x > -12$



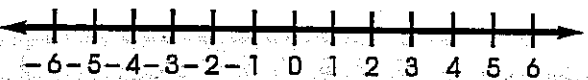
4. $4(2b - 3) \geq 36$



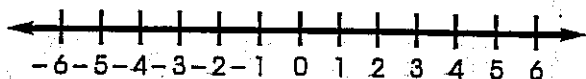
9. $-2(2x - 1) \geq -9$



5. $7 < 5x - 8$



10. $41.56 < 6.3 - 8.2x$



Ratios

Write each ratio as a fraction in simplest form.

$$3 \text{ to } 12 \rightarrow \frac{3}{12} = \frac{1}{4}$$

$$65 : 35 \rightarrow \frac{65}{35} = \frac{13}{7}$$

$$6 \text{ out of } 40 \rightarrow \frac{6}{40} = \frac{3}{20}$$

1. 196 to 7

8. 54 out of 87

2. 19 : 76

9. 112 : 140

3. 18 out of 27

10. 88 to 104

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

11. 65 out of 105

5. 0.11 : 1.21

12. 65 : 117

6. 140 : 112

13. 165 to 200

7. 18 to 27

14. 168 : 264

Percents

Percent (%) means: per hundred
out of a hundred
hundredths
2 decimal places

$$\frac{3}{4} \rightarrow \frac{3}{4} = \frac{x}{100}$$
$$300 = 4x$$

$$75 = x$$

$$\frac{3}{4} = 75\%$$

$$0.375 \rightarrow 37.5 \text{ hundredths} = 37.5\%$$

1. $\frac{4}{5}$

10. 11.3

2. $\frac{4}{7}$

11. $\frac{11}{20}$

3. 0.22

12. 0.086

4. 2.5

13. $\frac{7}{8}$

5. $\frac{3}{8}$

14. 16.688

6. 0.006

15. $\frac{7}{16}$

7. 1.125

16. 621.9

8. $\frac{1}{2}$

17. $\frac{5}{16}$

9. $\frac{9}{40}$

18. 3.9932

Working with Percents

80% of 30 =

$$\frac{80}{100} = \frac{x}{30}$$

$$100x = 2400$$

$$x = 24$$

1. 20% of 10 = _____ 4. $9\frac{1}{2}\%$ of 20 = _____

2. 25% of 45 = _____ 5. 25% of 39 = _____

3. 88% of 15 = _____ 6. 16% of 90 = _____

____% of 30 = 10

$$\frac{x}{100} = \frac{10}{40}$$

$$40x = 1000$$

$$x = 25 \quad 25\%$$

1. _____% of 25 = 15 4. _____% of 75 = 33

2. _____% of 30 = 10 5. _____% of 15 = 6

3. _____% of 4 = 7 6. _____% of 80 = 40

80% of _____ = 65

$$\frac{80}{100} = \frac{65}{x}$$

$$50x = 6500$$

$$x = 130$$

1. 20% of _____ = 15 4. $33\frac{1}{3}\%$ of _____ = 41

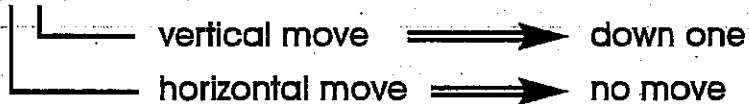
2. 80% of _____ = 56 5. 80% of _____ = 16

3. 25% of _____ = 19 6. 30% of _____ = 15

Plotting Points

Connect each of the following ordered points.

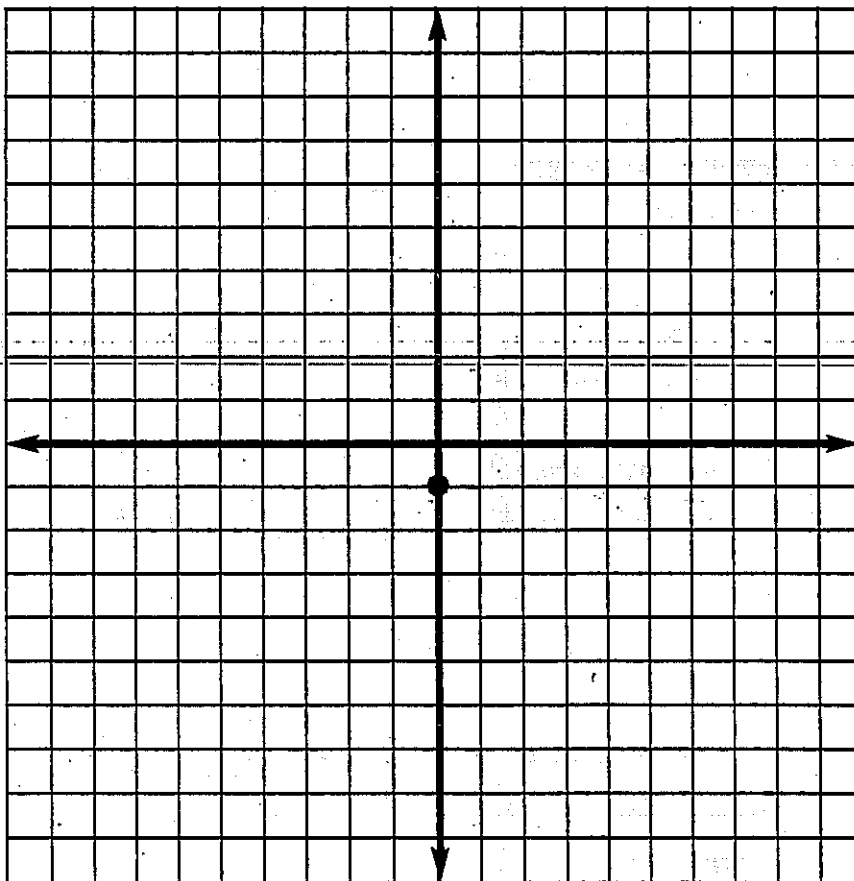
$$(x, y) = (0, -1)$$



"Ancient History"

Start at $(0, -1)$

- | | |
|-----------|------------|
| $(1, -1)$ | $(0, 3)$ |
| $(1, -3)$ | $(-1, 4)$ |
| $(3, -3)$ | $(-2, 3)$ |
| $(3, -1)$ | $(-3, 4)$ |
| $(5, 0)$ | $(-4, 3)$ |
| $(8, 0)$ | $(-5, 1)$ |
| $(7, 1)$ | $(-8, 2)$ |
| $(9, 0)$ | $(-5, 0)$ |
| $(8, 2)$ | $(-3, -1)$ |
| $(5, 1)$ | $(-3, -3)$ |
| $(4, 3)$ | $(-1, -3)$ |
| $(3, 4)$ | $(-1, -1)$ |
| $(2, 3)$ | $(0, -1)$ |
| $(1, 4)$ | End |



Finding Slope Using the Slope Formula

$$\text{slope} = \frac{\text{difference in y-values}}{\text{difference in x-values}}$$

P (5, 3)

R (-1, 1)

$$\text{Slope of PR} = \frac{3 - 1}{5 - (-1)} = \frac{2}{6} = \frac{1}{3}$$

slope is $\frac{1}{3}$

1. A (-3, 1) D (4, 5)

8. S (-1, -3) X (2, -6)

2. C (2, 6) F (3, 5)

9. T (-4, -4) Z (6, 3)

3. B (0, 8) G (3, 2)

10. V ($\frac{3}{4}, \frac{3}{2}$) W ($\frac{11}{4}, \frac{5}{2}$)

4. J (-6, -3) K (-4, 5)

11. U (2, 3) A (-2, 3)

5. P (9, 4) M (7, 3)

12. C (4, -1) D (-2, 2)

6. Q (0, -4) R (1, -6)

13. Z (3, 5) H (5, 10)

7. L (-2, 6) N (2, -3)

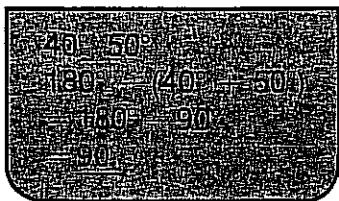
14. J (-2, -3) K (13, 7)

Name _____

Triangles (316-317)

**Practice
WORKSHEET 110**

The measures of two angles of a triangle are given. Find the measure of the third angle.



1. $80^\circ, 59^\circ$

2. $61^\circ, 59^\circ$

3. $61^\circ, 29^\circ$

4. $60^\circ, 60^\circ$

5. $45^\circ, 45^\circ$

6. $20^\circ, 90^\circ$

7. $150^\circ, 15^\circ$

Give the exercise numbers 1-7 of the triangles that are:

8. right

9. acute

10. obtuse

11. scalene

12. equilateral

13. right, scalene

14. obtuse, isosceles

15. isosceles

16. acute, scalene

17. right, isosceles

18. acute, isosceles

Use $\triangle DEF$ shown at the right.

$m\angle D = 68^\circ, m\angle F = 45^\circ$

Find the following.

19. $m\angle DEF$

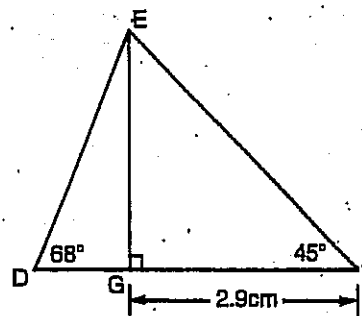
20. $m\angle GEF$

21. $m\angle DGE$

22. $m\angle DEG$

23. length of \overline{EG}

24. Name an isosceles triangle in the figure.



A Logical Conclusion

Mike, Dale, Paul and Charlie are the athletic director, quarterback, pitcher and goalie, but not necessarily in that order. From these five statements, identify the man in each position.

1. Mike and Dale were both at the ballpark when the rookie pitcher played his first game.
2. Both Paul and the athletic director had played on the same team in high school with the goalie.
3. The athletic director, who scouted Charlie, is planning to watch Mike during his next game.
4. Mike doesn't know Dale.
5. One of these men is a quarterback.

	Quarterback	Goalie	Pitcher	Athletic Director
Mike				
Dale				
Paul				
Charlie				

THE UNIVERSITY OF CHICAGO

Department of Chemistry
5780 South University Avenue
Chicago, Illinois 60637

Dear _____:

I am pleased to inform you that your application for admission to the Ph.D. program in Chemistry has been accepted.

Your research interests in _____ are highly regarded, and we believe you will make a valuable contribution to our department.

Please contact _____ at _____ for further information.

Sincerely,

Year	Grade	Course	Notes
1998	A	General Chemistry I	
1998	A	General Chemistry II	
1999	A-	Organic Chemistry I	
1999	B+	Organic Chemistry II	
2000	A	Physical Chemistry	
2000	A	Advanced Laboratory	
2001	A	Mathematical Chemistry	
2001	A	Research Internship	
2002	A	Thesis	