WORD PROBLEMS

1. Henry solved a certain number of algebra problems in an hour, but his older brother Frank solved 3 times as many, together they solved 60. How many were solved by each?
    Hint: It is often best to let x stand for the smaller of the quantities.   Why?

2. Francis has 4 times as many marbles as George and both together have 90. How many has each?

3. They sum of the edges of a cube is 24 inches. Find the length of each edge.

4. A house and lot are worth $15,600. If the house is worth 12 times the value of the lot, find the value of each.

5. The part of a bridge pier out of the water is three times the length of the part under water. If the height of the pier above water is 30 feet, what is the length of the part under water?

6. The length of the Panama Canal is about 50 miles. If the length of the rest of the canal is about nine times the length of the Culebra cut, how long is the Culebra cut?

7. Matthew's kite string is three times as long as Joseph's. If the strings were tied together, they would reach a tenth of a mile. How long is each? (1 mile = 5280 feet.)

8. A line segment 40 inches long is divided into two parts, so that one part is four times the other part. How long is each part?

9. The perimeter (distance around) of a rectangle is 108 inches. It is twice as long as it is wide. Find the length; the width. Draw the figure.

10. The Missouri-Mississippi River is 12 times as long as the Hudson River, and their combined length are 4550 miles. How long is the Hudson River?

11. One number exceeds (is more than) another number by 6, and the sum of the two numbers is 26. Find the two numbers.

12. One number exceeds another number by 13 and the sum of the two numbers is 35. What are the two numbers?

13. Divide a line segment 80 inches long so that one part exceeds the other by 20 inches.

14. A baseball team lost 4 more games than it won. If the team played 46 games, how many did it lose? How many did it win?

15. The sum of two numbers is 57. One exceeds the other by 17. Find the numbers.

16. The sum of two numbers is 39. One is 5 more than the other. Find the numbers.

17. A man walks 9 miles, then travels a certain distance by automobile, and twice as far by train. If the whole trip is 108 miles, how far does he go by automobile? How far by train?

18. If it requires 180 feet of fencing to enclose a rectangular lot 30 feet wide, how long is the lot? Draw the figure.

19. Tom wishes to build a pen for his rabbit. He wants it to be three times as long as it is wide, and he wants to use not more than half of his 240-feet of chicken wire. What are the maximum dimensions he can make his pen?