

Name Key  
Mrs. Roubos

Date \_\_\_\_\_  
8A Period \_\_\_\_\_

LEGEND, EQUATION, SOLUTION & CHECK  
(LESC for short)

\*From now on, EVERY word problem must be solved in this format

LEGEND	EQUATION/ INEQUALITY	SOLUTION	CHECK
Where you choose a variable & identify what it represents. Ex: Let $x = \dots$	Where you create an equation or inequality using the words in the problem and then solve it.	Where you answer the question in a complete sentence. Make sure your answer is labeled!	Where you check your answer by re-reading the question. NO VARIABLES. Only one operation per line.

USE PEMDAS

Name \_\_\_\_\_

8A; Algebra 1

Date \_\_\_\_\_

Period \_\_\_\_\_

Number and Inequality Word Problems  
Day I

1) Four times a number increased by 25 is 77. Find the number

Let  
 $x$  = the  
#

$$\begin{array}{r} 4x + 25 = 77 \\ -25 \quad -25 \\ \hline 4x = 52 \\ \frac{4}{4} \quad \frac{4}{4} \\ x = 13 \end{array}$$

The  
number  
is 13.

$$\begin{array}{r} 4(13) = 52 \\ 52 + 25 = 77 \\ \hline 77 = 77 \end{array}$$

2) During a charity drive, the boys in a class contributed \$3.75 more than the girls. If the boys contributed \$8.25, how much did the girls contribute?

Let  
 $x$  = the  
amount  
of \$ the  
girls  
contribute

$$\begin{array}{r} x + 3.75 = 8.25 \\ -3.75 \quad -3.75 \\ \hline x = 4.50 \end{array}$$

The  
girls  
contributed  
\$4.50

$$\begin{array}{r} 3.75 + 4.50 = 8.25 \\ \hline 8.25 = 8.25 \end{array}$$

3) If twice a number is subtracted from 84, the result equals 4 times the number. Find the number.

Let  
 $x$  = the  
number

$$\begin{array}{r} 84 - 2x = 4x \\ +2x \quad +2x \\ \hline 84 = 6x \\ \frac{84}{6} \quad \frac{6x}{6} \\ x = 14 \end{array}$$

The  
number  
is  
14

$$\begin{array}{r} 2(14) = 28 \\ 84 - 28 = 56 \\ \hline 4(14) = 56 \\ 56 = 56 \end{array}$$

4) Six more than 2 times a certain number is less than the number increased by 20. Find the numbers that satisfy this condition.

15 + 20

L	I	S	C
Let $x =$ the #s	$\begin{array}{r} 2x + 6 < x + 20 \\ -x \quad -x \\ \hline x + 6 < 20 \\ \quad -6 \quad -6 \\ \hline x < 14 \end{array}$	The #s that satisfy those conditions are all real #s less than 14	$\begin{array}{r} 2(10) = 20 \\ 20 + 6 = 26 \\ \hline 10 + 20 = 30 \\ 26 < 30 \checkmark \\ \hline 2(15) = 30 \\ 30 + 6 = 36 \\ 15 + 20 = 35 \\ 36 < 35 \end{array}$

5) A dealer sold an electric boiler for \$39.98. This amount was \$12.50 more than the boiler had cost him. How much did the boiler cost the dealer?

L	E	S	C
Let $x =$ the cost of the boiler for the dealer	$\begin{array}{r} x + 12.50 = 39.98 \\ -12.50 \quad -12.50 \\ \hline x = 27.48 \end{array}$	The cost of the boiler is \$27.48	$\begin{array}{r} 27.48 + 12.50 = 39.98 \\ \hline 39.98 = 39.98 \end{array}$

6) If twice a number is subtracted from 132, the result equals four times the number. Find the number.

L	E	S	C
Let $x =$ the #	$\begin{array}{r} 132 - 2x = 4x \\ +2x \quad +2x \\ \hline 132 = \frac{6x}{6} \\ \quad \quad \quad 6 \\ \hline x = 22 \end{array}$	The # is 22	$\begin{array}{r} 2(22) = 44 \\ 132 - 44 = 88 \\ \hline 4(22) = 88 \\ 88 = 88 \end{array}$

