Name _____ Date _____

Homework: Integer Word Problems

Consecutive integers follow one right after another in order

For example 3,4 and 5 are three consecutive integers.

If we let ***x*** represent the first integer,

look at 3, 4, and 5 (note that 4 is one more than 3, the first integer).

The second consecutive integer is represented by x+1.

The third consecutive integer is represented by x+2 (note that 5 is two more than 3, the first integer)

Example: Find three consecutive integers whose sum is 258

X+(x+1)+(x+2)=258

3x + 3 = 258

-3 -3 now subtract three from each side

3x = 255

3x = 255 now divide each side by three

3 3

x = 85 three consecutive integers are 85,86,87

now check your answer add your three integers together to make 258~ Yes!

Three times a number plus twenty two , is the same as when 110 is decreased by the number

3x+22= 110-x

-22= -22 subtract twenty two from each side

3x =88-x

+x = +x to make both sides of the equation equal add an x to both sides

4x = 88

4 4 now divide each side by four,

X=22

Find the integers that would solve the problems.

1. When eleven times the number is increased by six the result is thirty-six more than six times the number.

2. Find two consecutive odd integers whose sum is 128.

3. Four times a number plus four is the same as 20 plus two times the number. Find the number.

4. Seven times a number plus four is the same as twenty-two plus four times the number. Find the number.

5. Find three consecutive odd integers whose sum is 57.