Solve and show all work.

1) The sum of two numbers is 32. If you multiply the smaller by 6 and the larger by 2, you get the same number. What are the numbers?

2) The difference between two numbers is 19 and their sum is 5. What are the two numbers?

3) Find three consecutive even numbers such that the third plus twice the first equals two times the second, plus twenty-four.

4) If 5 times the second of three consecutive numbers is 41 less than 3 times the sum of the first and third, what are the numbers?

5) One number is three times the other. Four times the larger is equal to six more than four times the smaller number. What are the numbers?

6) Find four consecutive integers so that $\frac{7}{8}$ of the first number is two less than $\frac{9}{10}$ of the third number.

7) Kay is 4 years younger than Ray and 6 years younger than Fay. Their mother, May, is 14 years more than the sum of their ages. Their father, Jay, is 2 years older than May. The sum of their ages is 87. How old is each?

8) Seven years from now Herbie will be half as old as Magnolia. Five years ago she was eight times as old as he was. How old is each now?
9) Six years from now, Orvil will be twice as old a Arvilla. Two years ago he was three times as old as she was. How old is each now?

10) Forty years ago Willie was four times as old a his wife. Thirty-eight years ago he was twice as old as his wife was. How old is each now?

11) Lester Fester keeps some loose change in a ½ pound oatmeal box under his bed. It was the generic kind, but he put some stickers on the box to make it look better. One day he emptied the box and counted his money and found that he had $13.50. There were four times as many half-dollars as silver dollars, twice as many dimes as quarters, twice as many nickels as silver dollars, five times as many pennies as silver dollars, three more quarters than nickels. How many of each type of coin did he have?

12) Justin Case found a small cloth sack with some money in it. (At least that is the story he told his mother.) The bag contained $4.60 in coins. There were three times as many half dollars as quarters, twice as many dimes as nickels, two more pennies than dimes, and twice as many nickels as quarters. How many of each type of coin were there?

13) Harold Deal weighs 357 pounds. People call him, “Big Harry Deal”. One night when he emptied his pocket he found that he had $8.51 worth of change. The next day he spent it all in the candy and pop machines at work. He had twice as many nickels as quarters, ¼ as many dimes as half dollars, one more nickel than pennies, and three more quarters than dimes. How many of each type of coin did he have?