



408 – Linear Applications

1. One integer is two more than another integer. The sum of the two integers is forty-eight. Find the integers.
2. Find three consecutive odd integers such that seven times the sum of the first two integers is three more than nine times the third integer.
3. A coin bank contains twenty-four nickels and quarters. The coins have a total value of \$3.20. Find the number of nickels and the number of quarters in the bank.
4. A postal clerk sold some 22¢ stamps and some 28¢ stamps. All together 120 stamps were sold for a total costs of \$28.20. How many of each type of stamp was sold?
5. The sum of three numbers is eighty-one. The second number is twice the first number, and the third number is three less than four times the first number. Find the numbers.
6. A coffee merchant wants to make 30lb of a blend of coffee costing \$4.80 per pound. The blend is made using \$6 grade and a \$4 grade of coffee. How many pounds of each grade of coffee should be used?
7. A butcher has some hamburger that is 22% fat and some that is 12% fat. How many pounds of each should be mixed to make 80 lb of hamburger that is 18% fat?

408 – Linear Applications SOLUTIONS

1. One integer is two more than another integer. The sum of the two integers is forty-eight. Find the integers.

23, 25

2. Find three consecutive odd integers such that seven times the sum of the first two integers is three more than nine times the third integer.

5, 7, 9

3. A coin bank contains twenty-four nickels and quarters. The coins have a total value of \$3.20. Find the number of nickels and the number of quarters in the bank.

14 nickels, 10 quarters

4. A postal clerk sold some 22¢ stamps and some 28¢ stamps. All together 120 stamps were sold for a total costs of \$28.20. How many of each type of stamp was sold?

90 - 22¢ stamps

30 - 28¢ stamps

5. The sum of three numbers is eighty-one. The second number is twice the first number, and the third number is three less than four times the first number. Find the numbers.

12, 24, 45

6. A coffee merchant wants to make 30lb of a blend of coffee costing \$4.80 per pound. The blend is made using \$6 grade and a \$4 grade of coffee. How many pounds of each grade of coffee should be used?

12lbs of \$6 grade, 18 lbs of \$4 grade

7. A butcher has some hamburger that is 22% fat and some that is 12% fat. How many pounds of each should be mixed to make 80 lb of hamburger that is 18% fat?

48lbs of 22% fat, 32lbs of 12% fat