Multi-Step Word Problems

Fractions of Amounts

1. Sarah entered a 100-word story competition. She wrote her story over two evenings. On the first evening, she wrote $\frac{6}{10}$ and on the second evening she wrote the rest.

   a. How many words did she write on the first evening?
   b. How many words did she write on the second evening and what fraction was this?

2. Two families, the Smiths and the Taylors, go to a restaurant for a meal. At the end of the night, when they pay their £100 bill, they use a 50% off voucher, which halves their bill. They then split the remaining amount equally between the two families.

   a. How much does the bill come to after the discount voucher?
   b. How much does each family pay after the discount voucher has been deducted?

3. There were 120 school children going on a school residential trip. There were 2 coaches, each carrying $\frac{1}{2}$ of the children. On coach B, $\frac{1}{6}$ of the children had medication with them.

   a. How many children were on each coach?
   b. How many children had medication on coach B?

4. A retired couple won £400 on the lottery. They decided to give $\frac{3}{4}$ to their family and to spend $\frac{1}{4}$ on a weekend away for themselves.

   a. How much money did the couple give to their family?
   b. How much money did they spend on their weekend away?

5. Jane watched a film that was 1 hour long. $\frac{5}{6}$ of the way through the film, the doorbell rang. She paused the film to answer the door and it was the postman with a parcel.

   a. How many minutes of the film had she watched before the postman arrived?
   b. How many minutes of the film did she have left to watch?

6. A cake maker is icing a wedding cake that needs three different sized tiers. The icing has a mass of 2000g. He uses $\frac{6}{10}$ of the icing for the bottom tier, $\frac{3}{10}$ of the icing for the middle tier and $\frac{1}{10}$ of the icing for the top tier.

   a. What is the mass of the icing in the bottom tier?
   b. What is the mass of the icing in the middle tier?
   c. What is the mass of the icing in the top tier?

Multi-Step Word Problems

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1. Sarah entered a 500-word story competition. She wrote her story over two evenings. On the first evening, she wrote $\frac{6}{10}$ and on the second evening she wrote the rest.

   a. How many words did she write on the first evening?
   b. How many words did she write on the second evening and what fraction was this?

2. Two families, the Smiths and the Taylors, go to a restaurant for a meal. At the end of the night, when they pay their £150 bill, they decide to split the bill equally between the two families. Mr Smith pays for his family's half of the bill. The Taylor family, however, decide to split their half of the bill between each of their family members, each member paying $\frac{1}{3}$ of their family's bill.

   a. How much do the Smiths pay?
   b. How much do each member of the Taylor family pay?

3. There were 150 school children going on a school residential trip. There were 3 coaches, each carrying $\frac{1}{3}$ of the children. On coach B, $\frac{1}{10}$ of the children had medication with them.

   a. How many children were on each coach?
   b. How many children had medication on coach B?

4. A retired couple won £800 on the lottery. They decided to give $\frac{5}{8}$ to their family and to spend $\frac{3}{8}$ on a weekend away for themselves.

   a. How much money did the couple give to their family?
   b. How much money did they spend on their weekend away?

5. Jane watched a film that was 120 minutes long. $\frac{5}{6}$ of the way through the film, the doorbell rang. She paused the film to answer the door and it was the postman with a parcel.

   a. How many minutes of the film had she watched before the postman arrived?
   b. How many minutes of the film did she have left to watch and what fraction of the film was this?

Multi-Step Word Problems

Fractions of Amounts

1. Sarah entered a 500-word story competition. She wrote her story over three evenings. On the first evening, she wrote $\frac{2}{5}$, on the second evening she wrote $\frac{3}{10}$, and on the third evening she wrote the rest.

   a. How many words did she write on the first evening?
   b. How many words did she write on the second evening?
   c. How many words did she write on the third evening and what fraction was this?

2. Two families, the Smiths and the Taylors, go to a restaurant for a meal. At the end of the night, when they pay their £177 bill, they decide to split the bill equally between the two families. Mr Smith pays for his family's half of the bill. The Taylor family, however, decide to split their half of the bill between each of their family members, each member paying $\frac{1}{3}$ of their family's bill.

   a. How much do the Smiths pay?
   b. How much do each member of the Taylor family pay?

3. There were 126 school children going on a school residential trip. There were 3 coaches, each carrying $\frac{1}{3}$ of the children. On coach B, $\frac{1}{6}$ of the children had medication with them.

   a. How many children were on each coach?
   b. How many children had medication on coach B?

4. A retired couple won £628.75 on the lottery. They decided to give $\frac{3}{5}$ to their family and to spend $\frac{2}{5}$ on a weekend away for themselves.

   a. How much money did the couple give to their family?
   b. How much money did they spend on their weekend away?

5. Jane watched a film that was 156 minutes long. $\frac{5}{6}$ of the way through the film, the doorbell rang. She paused the film to answer the door and it was the postman with a parcel.

   a. How many minutes of the film had she watched before the postman arrived?
   b. How many minutes of the film did she have left to watch and what fraction of the film was this?

6. A cake maker is baking a wedding cake that needs three different sized tiers. The mixture has a mass of 4005g. He uses $\frac{5}{9}$ of the mixture for the bottom tier, $\frac{1}{3}$ of the mixture for the middle tier and $\frac{1}{9}$ of the mixture for the top tier.

   a. What is the mass of the mixture in the bottom tier in g and kg?
   b. What is the mass of the mixture in the middle tier in g and kg?
   c. What is the mass of the mixture in the top tier in g and kg?

7. A dressmaker has 8.4m of fabric to make an outfit. He makes a bag with $\frac{1}{7}$ of the fabric, a skirt with $\frac{2}{7}$ of the fabric and a top with the rest.

   a. How much fabric is used for the bag?
   b. How much fabric is used for the skirt?
   c. How much fabric is used for the top and what is this as a fraction of the total fabric?

8. A chef ordered five dozen eggs for her restaurant. $\frac{1}{12}$ of the eggs were used for a chocolate brownie special. $\frac{1}{4}$ of the eggs were used for cooked breakfasts. From the remainder, $\frac{1}{2}$ of the eggs were used for the meringue in an Eton Mess pudding.

   a. How many eggs were used for the chocolate brownie?
   b. How many eggs were used for the breakfasts?
   c. How many eggs were used for the Eton Mess?
   d. How many eggs were left?

9. At the Olympics, a country won 84 medals. $\frac{1}{2}$ of the medals were gold, $\frac{1}{3}$ of the medals were silver and $\frac{1}{6}$ of the medals were bronze.

   a. How many medals were gold?
   b. How many medals were silver?
   c. How many medals were bronze?

10. At the local triathlon, competitors travel a total distance of 25km. They cycle $\frac{4}{5}$ of the distance. From the remainder of the distance, they run $\frac{9}{10}$ and swim $\frac{1}{10}$.

    a. How far do the competitors cycle?
    b. How far do the competitors run?
    c. How far do the competitors swim?