

Good morning Year 4s, For today's maths, solve the fraction word problems below and then try the Y4 Maths Friday Family Challenge. It starts off with easier questions and gets progressively harder. (We haven't covered percentages at Year 4 so you can miss out question 8 and 10, unless someone in your family would like to have a go at solving them.

Multi-Step Word Problems

Fractions of Amounts

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?
6. A cake maker is baking a wedding cake that needs three different sized tiers. The mixture has a mass of 4000g. He uses $\frac{1}{2}$ of the mixture for the bottom tier, $\frac{3}{8}$ of the mixture for the middle tier and $\frac{1}{8}$ of the mixture for the top tier.
 - a. What is the mass of the mixture in the bottom tier?
 - b. What is the mass of the mixture in the middle tier?
 - c. What is the mass of the mixture in the top tier?
7. A dressmaker has 12m of fabric to make an outfit. He makes a bag with $\frac{1}{12}$ of the fabric, a skirt with $\frac{1}{2}$ 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?

Multi-Step Word Problems

Fractions of Amounts **Answers**

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? **300 words**
 - b. How many words did she write on the second evening and what fraction was this? **200 words = $\frac{4}{10}$ or $\frac{2}{5}$**
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? **£75**
 - b. How much do each member of the Taylor family pay? **£25 each**
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? **50 children on each coach**
 - b. How many children had medication on coach B? **5 children**
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? **£500**
 - b. How much money did they spend on their weekend away? **£300**
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? **100 minutes or 1 hour and 40 minutes**
 - b. How many minutes of the film did she have left to watch? **20 minutes = $\frac{1}{6}$ or $\frac{20}{120}$ or $\frac{2}{12}$**
6. A cake maker is baking a wedding cake that needs three different sized tiers. The mixture has a mass of 4000g. He uses $\frac{1}{2}$ of the mixture for the bottom tier, $\frac{3}{8}$ of the mixture for the middle tier and $\frac{1}{8}$ of the mixture for the top tier.
 - a. What is the mass of the mixture in the bottom tier? **2000g or 2kg**
 - b. What is the mass of the mixture in the middle tier? **1500g or 1.5kg**
 - c. What is the mass of the mixture in the top tier? **500g or 0.5kg**
7. A dressmaker has 12m of fabric to make an outfit. He makes a bag with $\frac{1}{12}$ of the fabric, a skirt with $\frac{1}{2}$ of the fabric and a top with the rest.
 - a. How much fabric is used for the bag? **1m**
 - b. How much fabric is used for the skirt? **6m**
 - c. How much fabric is used for the top and what is this as a fraction of the total fabric? **5m = $\frac{5}{12}$**