L.O. To solve problems involving ratio and proportion.

Ratio and proportion word problems (bronze)

1. Chloe shares out 8 sweets. She gives Alex 1 sweet for every 3 sweets she takes. How many sweets does Alex get?

2. Chicken must be cooked for 10 minutes per 1 kg. How long would you have to cook a 4kg chicken for?

3. In a bag of mixed nuts, there are 2 peanuts for every 3 cashew nuts. If there are 15 nuts in total, how many peanuts are there?

4. A mother sea lion is fed 5 fish for every 1 fish its baby gets. Marco fed the mother 10 fish. How many fish did the baby get?

The next day, Marco fed the baby 6 fish. How many did he feed to the mother?

Ingredients (Makes about 12)
50g margarine
40g caster sugar
1 ½ level tablespoons golden syrup
100g plain flour
1 level teaspoon ground ginger
50g rolled oats
½ tablespoon bicarbonate of soda
½ tablespoon milk

5) How many grams of margarine would you need to make 24 cookies?

6) How much flour would you need to make 6 cookies?

7) How much caster sugar would you need to make 3 cookies?

L.O. To solve problems involving ratio and proportion.

<u>Ratio and proportion word problems (silver)</u>

1. Chloe shares out 12 sweets. She gives Alex 1 sweet for every 3 sweets she takes. How many sweets does Alex get?

2. Chicken must be cooked for 50 minutes per 1 kg. How long would you have to cook a 4kg chicken for?

3. In a bag of mixed nuts, there are 2 peanuts for every 3 cashew nuts. If there are 30 nuts in total, how many peanuts are there?

4. A mother sea lion is fed 8 fish for every 2 fish its baby gets. Marco fed the mother 24 fish. How many fish did the baby get?

The next day, Marco fed the baby 12 fish. How many did he feed to the mother?

Sponge Cake (serves 8)
4 oz. butter
4 oz. caster sugar
4 oz. self raising flour
   2   medium eggs

5. Re-write the recipe for a large birthday cake for 40 people.

6. My cupboards are fully stocked but I only have 6 eggs. How many people can I serve?

Pecan Toffee (makes 40)
125g pecan nuts
500ml water
425g soft brown sugar

7. Rewrite the recipe to make 20 toffees

L.O. To solve problems involving ratio and proportion.

<u>Ratio and proportion word problems (gold)</u>

1. Chloe shares out 36 sweets. She gives Alex 1 sweet for every 3 sweets she takes. How many sweets does Alex get?

2. Chicken must be cooked for 26 minutes per 1 kg. How long would you have to cook a 4kg chicken for?

3. In a bag of mixed nuts, there are 2 peanuts for every 3 cashew nuts. If there are 60 nuts in total, how many peanuts are there?

4. A mother sea lion is fed 8 fish for every 3 fish its baby gets. Marco fed the mother 16 fish. How many fish did the baby get?

The next day, Marco fed the baby 12 fish. How many did he feed to the mother?

5. Jane got 60p pocket money and saved 20p. David got £3 and saved £1. Who saved the greater proportion of pocket money?

6. The school has raised £600 for 3 different charities. £100 is going to RSPCA, £200 is going to Ashford hospital and £300 is going to the Red Cross. What is the **proportion** of money going to Ashford hospital? (Simplify the proportion).

7. Sweets were shared between Fatima and Serena in the ratio of 1 to 4 (1:4). What **proportion** of sweets does Fatima get?

Homemade Custard (serves 6)
1 pint whole milk
1 vanilla pod
6 large egg yolks
75g caster sugar

8.How many servings could you make with 2 litres of milk?
    (1 litre = approx. 1.75 pints)

9.What weights and amounts of the other ingredients are needed for this batch?

L.O. To solve problems involving ratio and proportion.

<u>Ratio and proportion word problems (bronze) - answers</u>

1. Chloe shares out 8 sweets. She gives Alex 1 sweet for every 3 sweets she takes. How many sweets does Alex get? 2

2. Chicken must be cooked for 10 minutes per 1 kg. How long would you have to cook a 4kg chicken for? 40 minutes

3. In a bag of mixed nuts, there are 2 peanuts for every 3 cashew nuts. If there are 15 nuts in total, how many peanuts are there? 6

4. A mother sea lion is fed 5 fish for every 1 fish its baby gets. Marco fed the mother 10 fish. How many fish did the baby get? 2

The next day, Marco fed the baby 6 fish. How many did he feed to the mother? 30

Ingredients (Makes about 12)
50g margarine
40g caster sugar
1 ½ level tablespoons golden syrup
100g plain flour
1 level teaspoon ground ginger
50g rolled oats
½ tablespoon bicarbonate of soda
½ tablespoon milk

5) How many grams of margarine would you need to make 24 cookies?

100g

6) How much flour would you need to make 6 cookies?

50g

7) How much caster sugar would you need to make 3 cookies?

10g

L.O. To solve problems involving ratio and proportion.

<u>Ratio and proportion word problems (silver) - answers</u>

1. Chloe shares out 12 sweets. She gives Alex 1 sweet for every 3 sweets she takes. How many sweets does Alex get? 3

2. Chicken must be cooked for 50 minutes per 1 kg. How long would you have to cook a 4kg chicken for? 200 minutes = 3 hours 20 mins

3. In a bag of mixed nuts, there are 2 peanuts for every 3 cashew nuts. If there are 30 nuts in total, how many peanuts are there? 12

4. A mother sea lion is fed 8 fish for every 2 fish its baby gets. Marco fed the mother 24 fish. How many fish did the baby get? 6

The next day, Marco fed the baby 12 fish. How many did he feed to the mother? 48

Sponge Cake (serves 8)
4 oz. butter
4 oz. caster sugar
4 oz. self raising flour
   3   medium eggs

5. Re-write the recipe for a large birthday cake for 40 people.

20 oz butter,   20 oz caster sugar, 20 oz self-raising flour, 15 medium eggs

7.   My cupboards are fully stocked but I only have 6 eggs. How many people can I serve? 16

Pecan Toffee (makes 40)
125g pecan nuts
500ml water
425g soft brown sugar

8.   Rewrite the recipe to make 20 toffees
62.5g pecan nuts, 250ml water, 212.5g soft brown sugar

L.O. To solve problems involving ratio and proportion.

Ratio and proportion word problems (gold) - answers

1. Chloe shares out 36 sweets. She gives Alex 1 sweet for every 3 sweets she takes. How many sweets does Alex get? 9

2. Chicken must be cooked for 26 minutes per 1 kg. How long would you have to cook a 4kg chicken for? 104 minutes = 1 hour 44 minutes

3. In a bag of mixed nuts, there are 2 peanuts for every 3 cashew nuts. If there are 60 nuts in total, how many peanuts are there? 24

4. A mother sea lion is fed 8 fish for every 3 fish its baby gets. Marco fed the mother 16 fish. How many fish did the baby get? 6

The next day, Marco fed the baby 12 fish. How many did he feed to the mother? 32

5. Jane got 60p pocket money and saved 20p. David got £3 and saved £1. Who saved the greater proportion of pocket money? They both saved 1/3

6. The school has raised £600 for 3 different charities. £100 is going to RSPCA, £200 is going to Ashford hospital and £300 is going to the Red Cross. What is the **proportion** of money going to Ashford hospital? (Simplify the proportion). 200/600 = 1/3

7. Sweets were shared between Fatima and Serena in the ratio of 1 to 4 (1:4). What **proportion** of sweets does Fatima get? 1/5

Homemade Custard (serves 6)
1 pint whole milk
1 vanilla pod
6 large egg yolks
75g caster sugar

8.How many servings could you make with 2 litres of milk?
    (1 litre = approx. 1.75 pints) 21

9.What weights and amounts of the other ingredients are needed for this batch?   3.5 vanilla pods, 21 egg yolks, 262.5g caster sugar