



## Mini-task: Estimating (2)

### Estimating costs for party food

Joe runs a cafe but also sometimes does catering for outside events, such as customer parties. For these occasions, Joe has a list of items from which his customers can choose for their party food menu:

<u>Menu choices:</u>
Sausage rolls
Scotch eggs
Barbequed chicken legs
Samosas
Bhajis
Sandwiches (cheese, ham, turkey, egg)
Quiche (vegetarian or bacon)
Coleslaw
Salad (lettuce, tomato, cucumber, peppers)
Rice salad
Crisps
Bread (rolls or french stick)
Cake
Trifle

For each booking that Joe gets, he needs to work out:

- the amount of each item needed for the number of people coming to the party and
- how much to charge the customer.

1. He has a booking for a party of 29 people.  
Work out the approximate number of packs of each of the items he will need.

Example:

A pack of crisps has about **7 portions** in it, so Joe estimates that he will need 4 packets of crisps

*Think about multiplication facts to help you work out the number of packs needed. If you find it helpful you could use a multiplication square. (For more information and practice on using a multiplication square, see Mini-task: Multiplication 2.)*

Portions of 7

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	28	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50

**Q 1(a)** Fill in the number of packs needed for 29 guests in the column below:

*The first one has been done for you.*

Item	Number of portions in pack	Number of packs needed
Crisps	7	<b>4</b>
Chicken legs	6	
Sausage rolls	5	
Scotch eggs	4	
Quiche	8	
Bread rolls	10	
Cake	20	

**Q 1(b)** For this menu, Joe charges £2.99 per guest.

**Using rounding, work out the approximate bill for this party of 29 guests.**

**Q 1(c)** Joe estimates the costs of his shopping for the food for this party.

The cost of the different items is given in the box below.

**Round each of these prices to the nearest pound.**

*The first one has been done for you.*

Crisps	£1.06	<b>£1</b>
Chicken legs	£2.99	
Sausage rolls	95p	
Scotch eggs	£1.89	
Quiche	£2.05	
Bread rolls	92p	
Cake	£3.95	

**Q 1(d)** Use the table below to help you work out:

- the cost for the right number of packs for each item
- **the total cost for all the food**

*The first item has been done for you.*

Item	Number of packs needed	Approx. cost per pack	Total cost for item
<b>Crisps</b>	<b>4</b>	<b>£1</b>	<b>£4</b>

TOTAL:

2. Joe has another booking for food for 58 guests.

This customer has chosen the following items from the menu:

Samosas	£1.96
Bhajis	£1.99
Green salad	£2.09
Rice salad	89p
Coleslaw	£2.05
Quiche	£1.89
Trifle	£2.95

**Q 2(a)** Use rounding to estimate:

- the number of packs needed to cater for the 58 guests
- the cost for this number of packs of each item ordered
- the total cost for all the food.

*The first item has been done for you.*

Item	Number of portions in pack	Number of packs needed	Approx. cost per pack	Total cost for item
Samosas	5	<b>12</b>	<b>£2</b>	<b>£24</b>
Bhajis	7			
Green salad	6			
Rice salad	9			
Coleslaw	8			
Quiche	8			
Trifle	10			

TOTAL:

**Q 2(b)** Joe charges £3.99 for this menu.

Estimate the fee he will charge this customer.

**Q 2(c)** A week before the party, the customer adjusts the number of guests he would like Joe to cater for. He now expects about 80 guests at his party.

How much **extra** will he need to charge the customer?

## Estimating 2 – Answer sheet

**Q 1(a)** Menu for 29 guests:

Item	No. of portions in pack	Number of packs needed
Crisps	7	4
Chicken legs	6	<b>5</b>
Sausage rolls	5	<b>6</b>
Scotch eggs	4	<b>7 or 8</b>
Quiche	8	<b>4</b>
Bread rolls	10	<b>3</b>
Cake	20	<b>2</b>

**Q 1(b)** The approximate bill for this party of 29 guests will be:

£3 × 30 guests = **£90**

**Q 1(c)** The prices rounded to the nearest pound are:

Crisps	£1.06	£1
Chicken legs	£2.99	£3
Sausage rolls	95p	£1
Scotch eggs	£1.89	£2
Quiche	£2.05	£2
Bread rolls	92p	£1
Cake	£3.95	£4

**Q 1(d)** The approximate costs for the food will be:

Item	No. of packs needed	Cost per pack	Total cost (£)
Crisps	4	£1	4
<i>Chicken legs</i>	5	£3	15
<i>Sausage rolls</i>	6	£1	6
<i>Scotch eggs</i>	7	£2	14
<i>Quiche</i>	4	£2	8
<i>Bread rolls</i>	3	£1	3
<i>Cake</i>	2	£4	8

**TOTAL: £58**

**Q 2(a)** Menu for 58 guests:

Item	No. of portions in pack	No. of packs	Approx. cost	Total cost (£)
Samosas	5	12	£2	24
Bhajis	7	8 or 9	£2	16 or 18
Green salad	6	10	£2	20
Rice salad	9	7 or 6	£1	7 or 6
Coleslaw	8	7	£2	14
Quiche	8	7	£2	14
Trifle	10	6	£3	18

**TOTAL: about £112**

**Q 2(b)** The fee for the 58 guests @ £3.99 will be about:

$$\pounds 4 \times 60 \text{ guests} = \pounds 240$$

**Q 2(c)** The extra cost to cater for 80 guests will be about:

$$\text{Extra guests: } 80 - 60 = 20 \text{ extra guests}$$

$$\pounds 4 \times 20 \text{ extra guests} = \pounds 80 \text{ more}$$