

GCSE Business

Teaching Calculations and
Avoiding Common Pitfalls



Welcome to this Professional Development Event

This event is for teachers delivering the Pearson Edexcel GCSE Business specification.

The first half of this session will focus on how we can best assist those that struggle to demonstrate good quantitative skills.

We will look at the type of calculation questions that could appear on both papers, ensuring that you as a classroom practitioner are fully aware of the exact skills that the specification requires the students to possess.

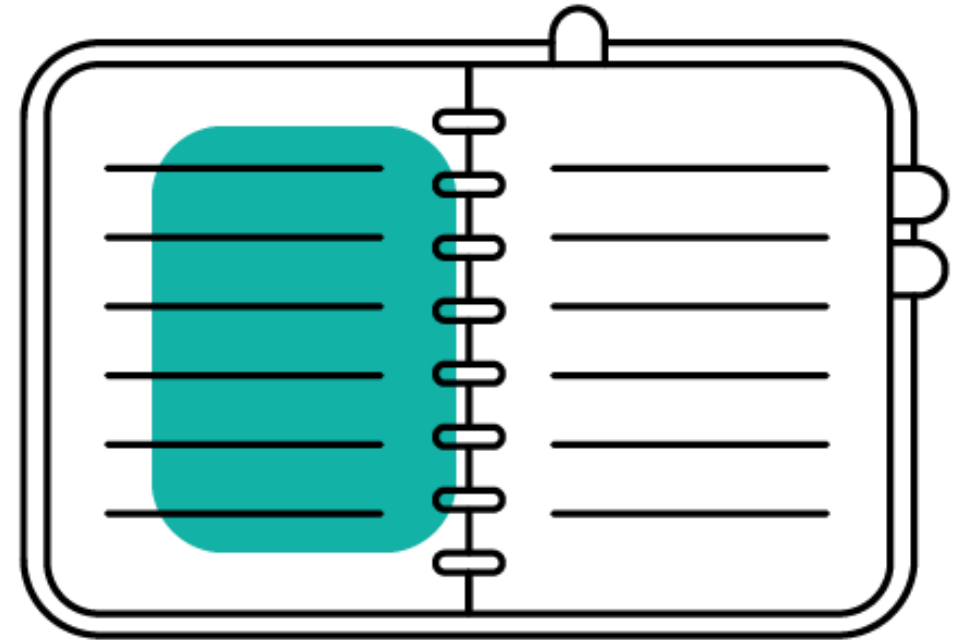
In the second half of the session, we will look at some of the common errors and misconceptions that exist amongst students, particularly in terms of exam technique and answering questions, helping you as the teacher to ensure you are giving your students the correct advice.



Agenda

In this session we are going to cover the following topics:

- Teaching calculations
- The pitfalls of the 'Justify' question
- What the principal and chief examiners say
- Explaining the method
- Other common mistakes
- Q&A.



Teaching Calculations



Key points for 'Calculate' questions

- Calculate questions are **always** worth 2 marks
- No marks are awarded for stating the formula
- The answer provided on the answer line is accepted as the final answer
- By providing the correct answer on the line, candidates will be awarded 2 marks
- Provide answers to 2 decimal places, where instructed
- Students should not worry about units, as these will be given
- Examiners will only look at 'working' if the answer provided is incorrect – so it is advised to always show 'working'.

Calculation

Calculations in a business context, including:

- percentages and percentage changes
- averages
- revenue, costs and profit
- gross profit margin and net profit margin ratios
- average rate of return
- cash-flow forecasts, including total costs, total revenue and net cash flow.

5 Table 2 shows the price of items in an order placed by a customer at *Popeyes*.

| Item | Price (£) |
|-------------------|-----------|
| Chicken sandwich | 6.50 |
| Chicken wings | 6.25 |
| Original biscuit | 1.00 |
| Mac and cheese | 3.50 |
| Coca-Cola classic | 2.75 |

Table 2

(a) Using the information in Table 2, calculate the average price of the items ordered by the customer.

(2)

$$6.50 + 6.25 + 1.00 + 3.50 + 2.75 = £20$$
$$£20 \div 4 = £5$$

£ 5.00

Teaching Calculations

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| Mac and cheese | 3.50 |
| Coca-Cola classic | 2.75 |

Table 2

- (a) Using the information in Table 2, calculate the average price of the items ordered by the customer.

(2)

$$\begin{aligned} 6.50 + 6.25 + 1.00 + 3.50 + 2.75 \\ = 20 \\ 20 \div 5 = 4 \end{aligned}$$

£ 4

Teaching Calculations

(c) Using the information in Table 1, calculate the average rate of return for the machine.

(2)

$$\begin{array}{l} \frac{500,000}{5} = 100,000 \text{ a year} \\ \frac{100,000}{200,000} = 0.5 = 50\% \end{array}$$

(c) Using the information in Table 1, calculate the average rate of return for the machine.

(2)

$$\begin{array}{l} \frac{500,000}{5} = 100,000 \text{ a year} \\ \frac{100,000}{200,000} = 0.5 = 50\% \end{array}$$

Teaching Calculations: Calculation Practise

Theme 1 – Practice Calculations

1. Table 1 contains information about a business.

| | |
|------------------------|--------|
| Number of units sold | 480 |
| Fixed costs | £2 200 |
| Variable cost per unit | £0.90 |

1a. Using the information in Table 1 calculate the total costs for a business.

[2]

Pitfalls of the 'Justify' question



June 2023 Paper 2 Q6c

Ocado plc is an online grocery retailer that does not own physical shops. *Ocado* purchases its groceries from food manufacturers such as Heinz or from other grocery retailers such as Marks & Spencer. It then sells these groceries through the *Ocado* website or through its app. Groceries are then delivered to each customer's home. The company already has a 62% 'excellent' rating on Trustpilot for its customer service. This is higher than other supermarkets, such as Asda, that also offer online grocery shopping. *Ocado* is considering introducing a one-hour, same day delivery service.

In 2020, *Ocado's* sales rose by more than 40% as demand for online grocery shopping increased. *Ocado* has invested in new technology in its warehouses. This has allowed *Ocado* to use a just in time (JIT) stock management system. As part of this investment, *Ocado's* robots now can pick a customer's order in less than 5 minutes. The robots have artificial intelligence and know that they should place heavy items such as milk at the bottom of a bag. This level of automation allowed *Ocado* to process an extra 30,000 orders each week during 2020.

In order to increase its share of the grocery market, *Ocado* is considering expanding its range of 'own label' products to improve its offer to customers.

9-Mark Justify Question

In order to increase its share of the online grocery market, *Ocado* has considered two options:

Option 1: offering a faster delivery service

Option 2: expanding its product range.

(c) Justify which **one** of these two options *Ocado* should choose.

Response 1

One reason they should choose option 1 is that a faster delivery service may meet the needs of Ocado's customers. This is because it may be more convenient for them to get the products quicker. This could lead to a better reputation, which may mean that customers are more likely to purchase from them. This should cause revenues to increase, leading to increased market share.

Response 1

One reason they should choose option 2 because it will satisfy customers who are looking for a wider range of products. This would make Ocado a lot more attractive to customers, therefore may lead to increased sales, potentially increasing profits.

Response 1

In conclusion Option 2 is the best because having a wide range of products will attract more customers.

| Level | A02 | A03a | A03b |
|-------|-----|------|------|
| L0 | | | |
| L1 | | | |
| L2 | | | |
| L3 | | | |

Response 2

Option 2: expanding its product range.

Ocado should choose this option because increasing its product range will entice more customers as ~~the~~ Ocado may sell its own range where you can't get any where else offering a USP. Also it decreases competition as customers are able to buy even more of their groceries in one place which is beneficial to customers as they can receive their goods all at once. This leads to ^{Ocado having a} competitive edge over other food companies which will increase its market share online as customers are more likely to buy from Ocado if it has an increased range and unique products.

Response 2

Ocado's delivery service is already very fast and customers are satisfied so ~~an~~ offering a faster delivery service will not change much for customers. ¹ Doing this may add increased pressure on the business and its suppliers in order to get ~~del~~ deliveries dispatched on time. This could lead to its machinery and robots being overworked and breaking down which would ~~cause~~ ^{cause} a huge drop in revenue as they would need to repair expensive equipment while still trying to get customer deliveries on time. Therefore expanding its product range seems the most beneficial ^{to increase its market share}.
(Total for Question 6 = 12 marks)

Response 2

| Level | A02 | A03a | A03b |
|-------|-----|------|------|
| L0 | | | |
| L1 | | | |
| L2 | | | |
| L3 | | | |

Response 3

I think they should follow option 1.
This is because customers will be satisfied with the fast delivery of groceries so therefore they would more likely purchase from Ocado.

However as they receive more orders it might be hard to deliver the groceries as fast as they want because there are lots more orders. Therefore customers get upset.

Response 3

They could also pick option 2. This is because having a wider range may appeal to more customers. Therefore their sales levels may increase.

However widening their range may not be a benefit because others such as Tesco already have a wide range. Therefore they are doing nothing different to their competitors.

Response 3

In conclusion they should pick option 1 because customers will be satisfied and other supermarkets already have a wide range.

| Level | A02 | A03a | A03b |
|-------|-----|------|------|
| L0 | | | |
| L1 | | | |
| L2 | | | |
| L3 | | | |

Response 4

Option 1 would be best for Ocado because a faster delivery service may meet the needs of Ocado's customers since there has been a 40% increase in demand for online grocery shopping during 2020. Delivering groceries faster may be more convenient for the customer rather than attending a physical supermarket. This would attract more customers to buy their weekly shop from Ocado rather than visiting a Tesco or ASDA store. This should increase revenue, leading to increased market share of the grocery market.

Response 4

However, option 1 may not be the best choice for the online supermarket as it may be expensive. They have already invested heavily in new technology so that robots can pack an order in less than 5 minutes, to reduce the delivery time further they will have to invest more in vans and drivers to ensure the quick delivery. This will increase the costs of the food retailer, which potentially may have to be passed onto the consumer in the form of higher delivery prices, which may mean that custom is lost to other supermarkets.

Response 4

Overall I think that having a faster delivery service is the best way to increase its share of the grocery market. In today's market convenience is key. Shoppers value their time and if a supermarket can deliver food and other groceries quicker than other supermarkets then customers will be drawn to them. However, this will be dependant on whether Ocado can offer sufficient delivery slots to the customers so they can be delivered in a timely fashion. There would be no point in having a fast delivery time but no slots available to shoppers.

Response 4

| Level | A02 | A03a | A03b |
|-------|-----|------|------|
| L0 | | | |
| L1 | | | |
| L2 | | | |
| L3 | | | |

Pitfalls of the 'Justify' question



Common Pitfalls in Justify Questions

- Lack of application
- Lack of analysis
 - Selecting benefit and drawback of each option
- Lack of evaluation
 - Benefit of option 1 and 2
 - Benefit of option 1 and drawback of option 2
- Saying very little in the conclusion
- Repetition in the conclusion

How you could structure a response

Whilst there are numerous ways to structure an approach, here are a few options which may work for you/your students:

Give a balanced argument, one way:

- ✓ Look at the pros and cons of one option.
- ✓ Potentially the most time efficient method.

Three paragraph approach:

1. Advantage of the chosen option
2. Drawback of the chosen option
3. Sophisticated conclusion

What to include in a conclusion

Sophisticated conclusion:

- ✓ Which option is best and why – what's the main reason in the context of the business.
- ✓ Why is it better than the other option?
- ✓ What might your decision depend on?
- ✓ Needs to bring in something new.

What the Principal and Chief Examiners say



What the Principal Examiners say

There still appears to be ingrained misconceptions as to how to approach the 'Justify' question. A number of students simply developed the benefits of both options within their answer. This approach **does not** naturally lead to any 'Evaluation' or 'AO3b', unless the candidate starts to contrast the magnitude of the importance of the two benefits. At GCSE level, this is a skill that is tricky to master, and from this year's marking experience, it was seldom seen. As Chief Examiner I have no idea where this approach has come from, but it seems to be a piece of 'baked in' examination technique that some centres seem insistent on using. Sadly, this is to the significant detriment of their students.

On the question of options, **whilst there can never been one preferred approach**, surely the safest and easiest route for candidates is to pick an option, and consider the pros and cons of that option, and then come to a conclusion that adds extra evaluation, rather than a repeat of what has already been written elsewhere in the answer. If this is done with application throughout and there are 5 linked strands of development – then 9 marks should be accessible to the candidate. Remember, there is no requirement for candidates to consider both options as part of their response.

Common Mistakes

Insufficient evaluation

- ✗ Advantage of option 1 and disadvantage of option 2
- ✗ Advantage of option 1 and advantage of option 2

Insufficient analysis

- ✗ Advantage and disadvantage of option 1 as well as advantage and disadvantage of option 2

Lack of context

- ✗ Miss out on application marks

Explain the method



Explain the method questions

Explain one method a business may use to generate repeat purchase.

P One method a business may use to encourage repeat purchase is to lower the price. This will lead to increased sales which will lead to more revenue and may therefore increase the profits of the business, which the business could then reinvest in itself, as a result the business may be able to grow at a faster rate, leading to increased market share.

Explain the method questions

Explain one method a business may use to generate repeat purchase.

P A business could offer discounts to returning customers. This would make the product more affordable for customers, leading to them thinking they are getting a bargain, so are more likely to repeat purchase.

dev¹

dev²

Explain the method questions

Explain one method that a business could use to reduce its environmental impact.

P One method a business could use is to buy more supplies from local suppliers, this will give the business a better reputation as they are using local firms. This will mean that customers are more likely to purchase from the business, which will lead to increased sales, leading to increased revenue, which may result in higher profits.

Explain the method questions and repeating question

Explain one method that a business could use to reduce its environmental impact.

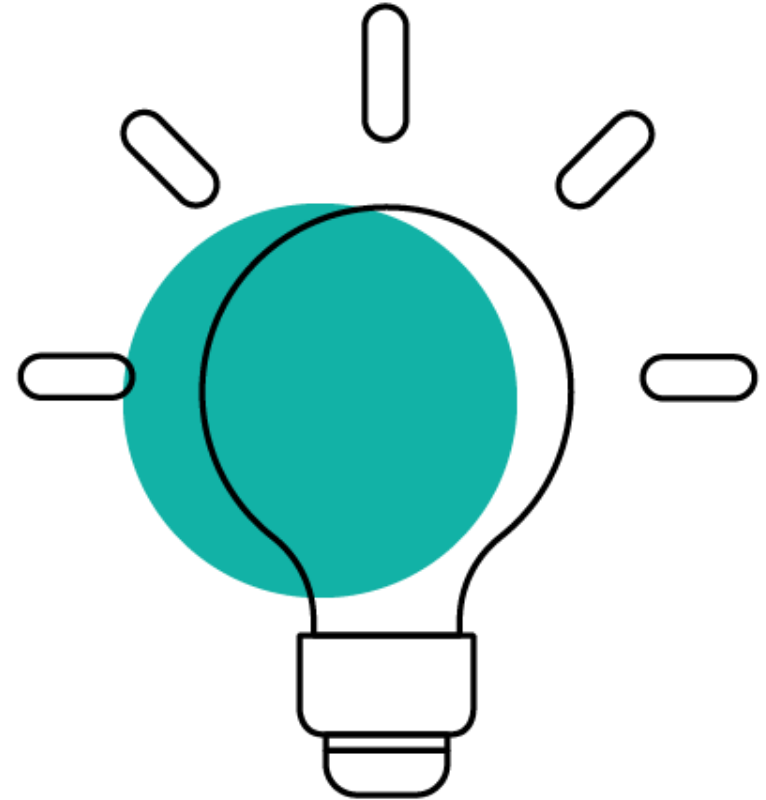
P One method a business could use is to buy more supplies from local suppliers, this will reduce the business' carbon footprint, therefore reducing the business' impact on the environment.

Other common mistakes



Other common pitfalls

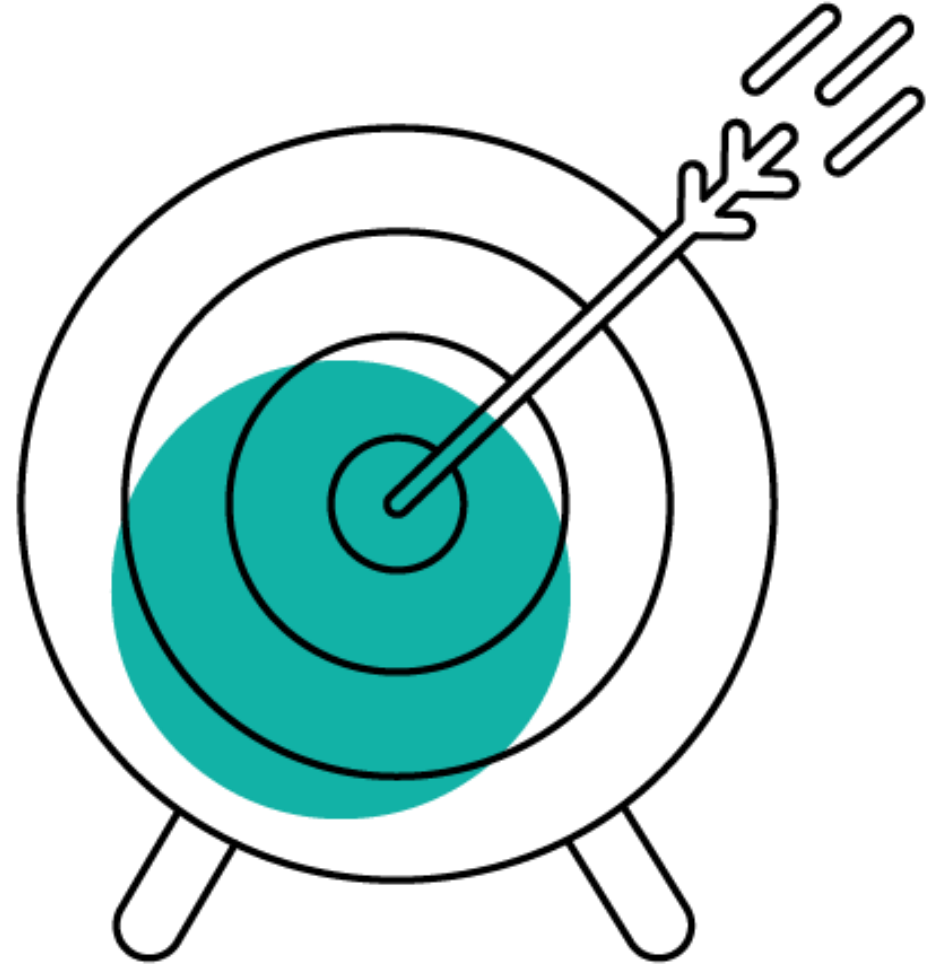
- Repeating question at the start of an answer
- Not showing specific knowledge
- Not using clear connectives
- Application, application, application!
- Writing too much!



Summary

In this session we covered the following:

- Teaching calculations
- Pitfalls of the 'Justify' question
- What the principal and chief examiners say
- Explain the method
- Other Common mistakes
- Q&A.

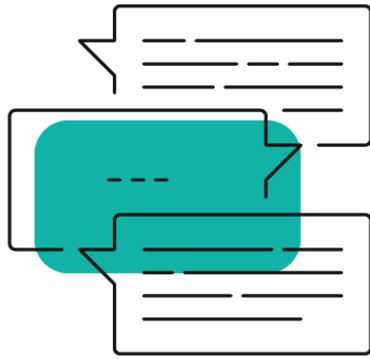




Q&A

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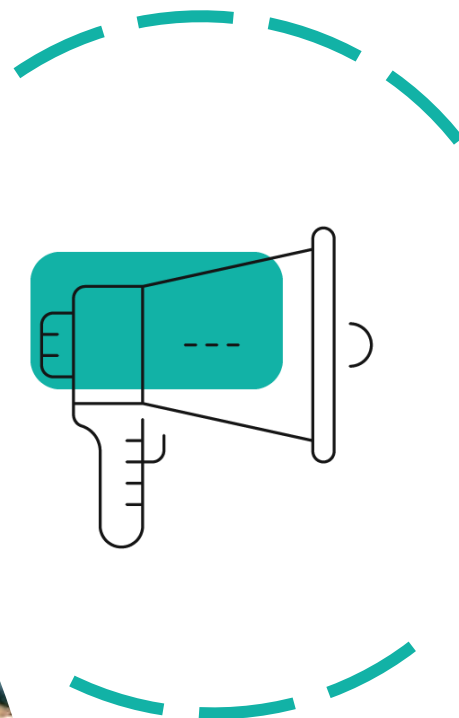
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Your Feedback Matters

Following this event, you will receive an invitation to share your thoughts about the session. Your feedback is invaluable to us, as it helps us tailor our professional development materials to better meet your needs. Please don't hesitate to let us know what you'd like to see more of and what areas you think could be improved.



Pearson

Appendix: Marked and annotated exemplar scripts



Response 1

One reason they should choose option 1 is that a faster delivery service may meet the needs of Ocado's customers. This is because it may be more convenient for them to get the products quicker. This could lead to a better reputation, which may mean that customers are more likely to purchase from them. This should cause revenues to increase, leading to increased market share.

P

2

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5

Response 1

P

One reason they should choose option 2 because it will satisfy customers who are looking for a wider range of products. This would make Ocado a lot more attractive to customers, therefore may lead to increased sales, potentially increasing profits.

6

7

8

Response 1

In conclusion Option 2 is the best because having a wide range of products will attract more customers.

| Level | A02 | A03a | A03b |
|-------|-----|------|------|
| L0 | x | | x |
| L1 | | | |
| L2 | | | |
| L3 | | x | |

Response 2

Option 2: expanding its product range.

P Ocado should choose this option because increasing its product range will entice more customers as Ocado may sell its own range where you can't get any where else offering a USP. Also it decreases competition as customers are able to buy even more of their groceries in one place which is beneficial to customers as they can receive their goods all at once. This leads to ^{Ocado having a} competitive edge over other food companies which will increase its market share online as customers are more likely to buy from Ocado if it has an increased range and unique products.

1

2

3

P

Response 2

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(Total for Question 6 = 12 marks)

Response 2

| Level | A02 | A03a | A03b |
|-------|-----|------|------|
| L0 | | | x |
| L1 | | | |
| L2 | x | | |
| L3 | | x | |

Response 3

I think they should follow option 1.
This is because customers will be
satisfied with the fast delivery of groceries
so therefore they would more likely
purchase from Ocado.

However as they receive more orders it might
be hard to deliver the groceries as fast
as they went because there are lots
more orders. Therefore customers get upset.

P
1

P

1

2

Response 3

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P However widening their range may not be a benefit because others such as Tesco already have a wide range. Therefore they are doing nothing different to their competitors.

Response 3

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| Level | A02 | A03a | A03b |
|-------|-----|------|------|
| L0 | | | |
| L1 | | | x |
| L2 | x | x | |
| L3 | | | |

Response 4

Option 1 would be best for Ocado because a faster delivery service may meet the needs of Ocado's customers since there has been a 40% increase in demand for online grocery shopping during 2020. Delivering groceries faster may be more convenient for the customer rather than attending a physical supermarket. This would attract more customers to buy their weekly shop from Ocado rather than visiting a Tesco or ASDA store. This should increase revenue, leading to increased market share of the grocery market.

1

3

2

4

Response 4

However, option 1 may not be the best choice for the online supermarket as it may be expensive. They have already invested heavily in new technology so that robots can pack an order in less than 5 minutes, to reduce the delivery time further they will have to invest more in vans and drivers to ensure the quick delivery. This will increase the costs of the food retailer, which potentially may have to be passed onto the consumer in the form of higher delivery prices, which may mean that custom is lost to other supermarkets.

1
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Response 4

Overall I think that having a faster delivery service is the best way to increase its share of the grocery market. In today's market convenience is key. Shoppers value their time and if a supermarket can deliver food and other groceries quicker than other supermarkets then customers will be drawn to them. However, this will be dependant on whether Ocado can offer sufficient delivery slots to the customers so they can be delivered in a timely fashion. There would be no point in having a fast delivery time but no slots available to shoppers.

Response 4

| Level | A02 | A03a | A03b |
|-------|-----|------|------|
| L0 | | | |
| L1 | | | |
| L2 | | | |
| L3 | x | x | x |



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