

**Spring Two: Week 1.**  
**Arithmetic.**  
**Mrs Brown's Group:**  
**Wednesday.**

# You do...

## 3 Minute Drill



**3 minutes to complete these questions!**

**Note how many you have correct when you finish.**

**Note how many you completed if you did not complete them all.**

**Before you put the date in your book, do these:**

$66 \div 11 =$	$60 \div 10 =$	$132 \div 11 =$	$120 \div 10 =$	$88 \div 8 =$
$20 \div 5 =$	$22 \div 2 =$	$60 \div 5 =$	$100 \div 10 =$	$40 \div 10 =$
$60 \div 6 =$	$18 \div 2 =$	$24 \div 3 =$	$5 \div 1 =$	$16 \div 8 =$
$8 \div 4 =$	$12 \div 6 =$	$84 \div 7 =$	$8 \div 8 =$	$66 \div 6 =$
$35 \div 5 =$	$108 \div 9 =$	$110 \div 11 =$	$12 \div 12 =$	$56 \div 8 =$
$48 \div 4 =$	$36 \div 6 =$	$80 \div 10 =$	$2 \div 2 =$	$4 \div 1 =$
$21 \div 7 =$	$1 \div 1 =$	$14 \div 2 =$	$12 \div 4 =$	$96 \div 8 =$
$14 \div 7 =$	$6 \div 2 =$	$80 \div 8 =$	$4 \div 4 =$	$8 \div 1 =$
$33 \div 3 =$	$30 \div 6 =$	$7 \div 7 =$	$11 \div 1 =$	$42 \div 7 =$
$54 \div 6 =$	$48 \div 6 =$	$35 \div 7 =$	$33 \div 11 =$	$2 \div 1 =$
$12 \div 3 =$	$30 \div 5 =$	$90 \div 10 =$	$9 \div 1 =$	$36 \div 12 =$
$28 \div 4 =$	$18 \div 9 =$	$6 \div 6 =$	$72 \div 12 =$	$10 \div 1 =$

# Answers ...

Note how many were correct and how many you completed in the 3 minutes.  
These will be your target for the following week!

## 3 Minute Drill

$66 \div 11 = 6$        $60 \div 10 = 6$        $132 \div 11 = 12$        $120 \div 10 = 12$        $88 \div 8 = 11$

$20 \div 5 = 4$        $22 \div 2 = 11$        $60 \div 5 = 12$        $100 \div 10 = 10$        $40 \div 10 = 4$

$60 \div 6 = 10$        $18 \div 2 = 9$        $24 \div 3 = 8$        $5 \div 1 = 5$        $16 \div 8 = 2$

$8 \div 4 = 2$        $12 \div 6 = 2$        $84 \div 7 = 12$        $8 \div 8 = 1$        $66 \div 6 = 11$

$35 \div 5 = 7$        $108 \div 9 = 12$        $110 \div 11 = 10$        $12 \div 12 = 1$        $56 \div 8 = 7$

$48 \div 4 = 12$        $36 \div 6 = 6$        $80 \div 10 = 8$        $2 \div 2 = 1$        $4 \div 1 = 4$

$21 \div 7 = 3$        $1 \div 1 = 1$        $14 \div 2 = 7$        $12 \div 4 = 3$        $96 \div 8 = 12$

$14 \div 7 = 2$        $6 \div 2 = 3$        $80 \div 8 = 10$        $4 \div 4 = 1$        $8 \div 1 = 8$

$33 \div 3 = 11$        $30 \div 6 = 5$        $7 \div 7 = 1$        $11 \div 1 = 11$        $42 \div 7 = 6$

$54 \div 6 = 9$        $48 \div 6 = 8$        $35 \div 7 = 5$        $33 \div 11 = 3$        $2 \div 1 = 2$

$12 \div 3 = 4$        $30 \div 5 = 6$        $90 \div 10 = 9$        $9 \div 1 = 9$        $36 \div 12 = 3$

$28 \div 4 = 7$        $18 \div 9 = 2$        $6 \div 6 = 1$        $72 \div 12 = 6$        $10 \div 1 = 10$



Date: Spring two: Week 1.

Title: Arithmetic



Title	Ingredients
Arithmetic: Number Problems	<ul style="list-style-type: none"><li>- Identify facts</li><li>- Step by step approach</li><li>- Double check facts</li><li>- Check what you have understood is correct</li><li>- Check you have answered the question</li></ul>

**Key words/terminology:** check, logic, methodical, record,

# Number Problems

# Model Question 1



## Stage 2 - Vocabulary

A shop sells  of lemon squash for   
and  of orange squash for . Jacob  
purchases  of lemon squash and   
litre of orange squash. How much change  
does he get from ?



## Stage 3 – Number Free Zone

A shop sells [ ] of lemon squash for [ ] and [ ]  
[ ] of orange squash for [ ] 30. Jacob purchases  
[ ] of lemon squash and [ ] of orange  
squash. How much change does he get from [ ]?

1. **Vocabulary** - Write a definition for the following words:  
*a) sell b) change*
2. **Retrieval** – What did Jacob purchase from the shop?
3. **Inference** – What is the question asking you to do? Summarise the problem.



You do ...



## Stage 4 – Answer Free Zone

A shop sells 1 litre of lemon squash for £1.50 and 1 litre of orange squash for £1.80. Jacob purchases 1,500ml of lemon squash and  $\frac{1}{2}$  litre of orange squash. How much change does he get from £10?

Answer ...



**Stage 4 – Answer Free Zone**

**Answer: £6.85**



## Thinking Talk

A shop sells 1 litre of lemon squash for £1.50 and 1 litre of orange squash for £1.80. Jacob purchases 1500ml of lemon squash and  $\frac{1}{2}$  litre of orange squash. How much change does he get from £10?

**Answer: £6.85**

Firstly, I can see that Jacob buys some lemon squash and orange squash.

I will start by working out how much the lemon squash will cost to buy.

The measurements are in different units so I need to convert them to make it easier to find the answer.

1 litre = 1,000ml

$\frac{1}{2}$  litre = 500ml

**Lemon Squash**  
1,000ml = £1.50  
500ml = £0.75  
**So, the total cost for lemon squash is £2.25**



## Thinking Talk

A shop sells 1 litre of lemon squash for £1.50 and 1 litre of orange squash for £1.80. Jacob purchases 1,500ml of lemon squash and  $\frac{1}{2}$  litre of orange squash. How much change does he get from £10?

**Answer: £6.85**

**Orange Squash**  
1,000ml = £1.80  
500ml = £0.90  
**Total cost for orange squash is £0.90**

Jacob spends £2.25 + £0.90. I can do this mentally using rounding and adjusting.

$$\begin{aligned}£2.25 + £1.00 &= £3.25 \\ £3.25 - 10p &= £3.15\end{aligned}$$

To find the change, I need to subtract £3.15 from £10. I can also do this mentally.

$$\begin{aligned}£10 - £3.00 &= £7.00 \\ £7.00 - £0.15 &= £6.85\end{aligned}$$

You do ...



## Stage 5 – Your Turn

A shop sells 2kg of peanuts for £2.40 and 500g of cashew nuts for £1.35. Sarah buys  $\frac{3}{4}$  kg of peanuts and 1.5kg of cashew nuts. How much change will she get from £10?

You do ...



## Stage 5 – Your Turn

**Answer: £5.05**

## **Model Question 2**



## Stage 3 – Number Free Zone

Henry went to the cinema to watch a film that started at .  
The film finished at . What was the  of the film?  
Write your answer in hours.

1. **Vocabulary** - Write a definition for the following words:  
*a) finished b) started c) duration*
2. **Retrieval** – In what unit do you need to write the answer?
3. **Inference** – What is the question asking you to do? Summarise the problem.



You do ...



## Stage 2 - Vocabulary

Henry went to the cinema to watch a film that started at 4:45pm. The film finished at 7:10pm. What was the duration of the film? Write your answer in hours and minutes.



Answer ...

## Stage 4 - Answer Free Zone

**Answer: 2 hours and 25 minutes**



## Thinking Talk

Henry went to the cinema to watch a film that started at 4:45pm. The film finished at 7:10pm. What was the duration of the film? Write your answer in hours.

Firstly, I need to realise that this is a time duration question.

To find time duration, I need to count the interval between the two times.

**Answer: 2 hours and 25 minutes**

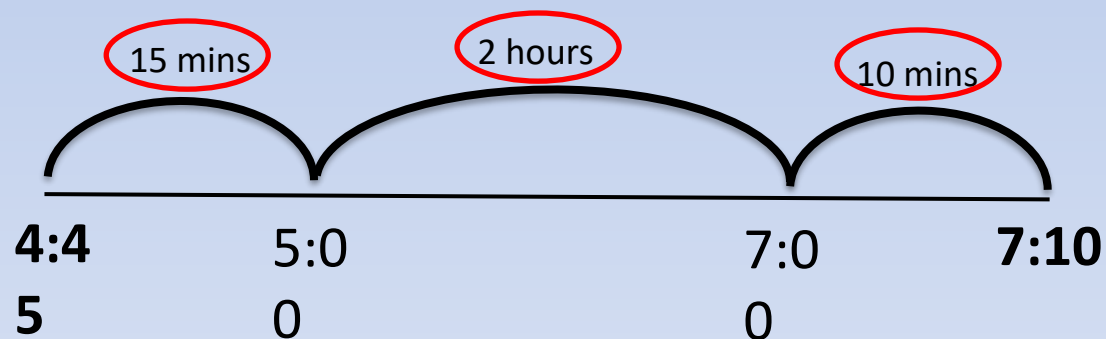
The starting time is 4:45pm and it finishes at 7:10pm. If I count on from 4:45 to 5:00, that is fifteen minutes. Then I could add two hours to get to 7:00. Finally, I have the last ten minutes to add. The total time is 2 hours and 25 minutes.



## Thinking Talk

Henry went to the cinema to watch a film that started at 4:45pm. The film finished at 7:10pm. What was the duration of the film? Write your answer in hours.

The easiest way to show this, and be very accurate with the timings, is on a time line.



**Answer: 2 hours and 25 minutes**

You do ...



## Stage 5 – Your Turn

Kelly arrived at the bus stop at 15:15. The buses stop at 42 minutes past the hour. How long will Kelly have to wait for the bus to arrive? Write your answer in minutes.

Answer ...



## Stage 5 – Your Turn

**Answer: 27 minutes**



## Your Turn

A film starts at 6:26pm. It lasts 145 minutes. What time will the film finish?

A block of cheese costs £2.80. 500ml of orange juice costs £1.30. Emma buys  $2\frac{1}{4}$  blocks of cheese and 250ml of orange juice. How much change will she receive if she pays with a £20 note?



## Your Turn

A film starts at 6:26pm. It lasts 145 minutes. What time will the film finish?

**8: 51pm**

A block of cheese costs £2.80. 500ml of orange juice costs £1.30. Emma buys  $2\frac{1}{4}$  blocks of cheese and 250ml of orange juice. How much change will she receive if she pays with a £20 note?

**£13.05**



You do ...



## Solving word problems – steps to success

1. **Take Two** – read the question twice, once to get a general idea of context and vocabulary; the second to understand exactly what is being asked.
2. Underline/highlight **key information** (or eliminate information from your enquiries - like a detective!)
3. **Give us a clue** – look for key words to guide you to the operation needed, e.g. *altogether* suggests addition, *share* suggests division etc.
4. **Summarise** – in your head, summarise the question back to yourself, e.g. *So, I've got to add the cost of 3 adults to the cost of a child, then subtract that from £50.00.*



You do ...



## Solving word problems – steps to success



5. **Estimate** – round the numbers to give a rough idea of what the answer should be and jot it down.

6. **Calculate** – make sure you align digits carefully.

8. Read the  question back – **have you answered it?**

9. Look at your original estimate – does your answer seem reasonable?



**The End !!!!**

