



THIRD SPACE LEARNING

Specialist 1-to-1 maths interventions
and curriculum resources

Rapid Reasoning

Year 4 | Weeks 25–36



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Year 4 | Week 30

This week, the questions within *Rapid Reasoning* continue to focus on measures, including time.

The following Year 4 objectives, first introduced in weeks 28 and 29, continue to be a focus:

- estimating, comparing and calculating with different measures, including money in pounds and pence
- reading, writing and converting time between analogue and digital 12- and 24-hour clocks
- solving problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

As with previous weeks, other content from Year 4 which the children have met in previous weeks of *Rapid Reasoning* alongside Year 3 objectives, will also feature this week.

Q1

Circle the time that is 30 minutes before midnight.

12.30am 00:30 12.30pm

11.30am 23:30 3am

1 mark

Q2

Add $<$, $=$ or $>$ to the boxes below to make these statements correct.

64,333 64,811

6,843 5,888

6,843 6,999

2 marks

Q3

Noah thinks of a whole number.

He multiplies it by 4.

He rounds his answer to the nearest 10.

The result is 190.

Write all the possible numbers that Noah could have started with.

2 marks

Q1

Circle the time that is 30 minutes before midnight.

12.30am 00:30 12.30pm

11.30am **23:30** 3am

1 mark

Q2

Add <, = or > to the boxes below to make these statements correct.

64,333 **<** 64,811

6,843 **>** 5,888

6,843 **<** 6,999

2 marks

Q3

Noah thinks of a whole number.

He multiplies it by 4.

He rounds his answer to the nearest 10.

The result is 190.

Write all the possible numbers that Noah could have started with.

47 and 48

2 marks

	Requirement	Mark	Additional guidance
Q1	23:30 circled	1	
Q2	Award TWO marks for all three symbols added correctly. 64,333 < 64,811 6,843 > 5,888 6,843 < 6,999 Award ONE mark for two symbols added correctly.	2	
Q3	Award TWO marks for 47 and 48 Award ONE mark for: only one correct number and no incorrect number OR 47 AND 48 AND not more than one incorrect number.	2	

Q1

The children at Farm View School are collecting money for new books.

Their target is to collect £1,050.

So far, they have collected £457.39.

How much more money do they need to reach their target?

1 mark

Q2

Billy is taking part in a sponsored silence.

He collects 7p for each minute he stays silent.

He stays silent for 97 minutes.

How much money does he collect? Give your answer in pounds and pence.

1 mark

Q3

Fill in the missing digits in this calculation.

$$\begin{array}{r} 91\boxed{}1 \\ - 743\boxed{} \\ \hline 1\boxed{}69 \end{array}$$

2 marks

Q1

The children at Farm View School are collecting money for new books.

Their target is to collect £1,050.

So far, they have collected £457.39.

How much more money do they need to reach their target?

£ **592.61**

1 mark

Q2

Billy is taking part in a sponsored silence.

He collects 7p for each minute he stays silent.

He stays silent for 97 minutes.

How much money does he collect? Give your answer in pounds and pence.

£ **6.79**

1 mark

Q3

Fill in the missing digits in this calculation.

$$\begin{array}{r} 91\boxed{0}1 \\ - 743\boxed{2} \\ \hline 1\boxed{6}69 \end{array}$$

2 marks

	Requirement	Mark	Additional guidance
Q1	Award ONE mark for the correct answer of £ 592.61.	1	Also accept £592.61p
Q2	£6.79	1	Also accept £6.79p
Q3	<p>Award TWO marks for all three digits completed correctly.</p> $ \begin{array}{r} 91\boxed{0}1 \\ -743\boxed{2} \\ \hline 1\boxed{6}69 \end{array} $ <p>Award ONE mark for two digits added correctly.</p>	2	

What are examiners looking for?**Q2**

Billy is taking part in a sponsored silence.
He collects 7p for each minute he stays silent.
He stays silent for 97 minutes.

How much money does he collect? Give your answer in pounds and pence.

£

6.79

1 markWhy are we asking this question?

This question is designed to assess children's ability to multiply a single-digit number by a two-digit number, as well as convert between pence and pounds.

What common errors do we expect to see?

Some children may not convert between pence and pounds, and therefore give the answer as £679.

How to encourage children to solve this question

First, draw children's attention to the wording of the question, which invites them to give the answer in pounds and pence, as well as the fact that the question box has a £ at the start of it.

Next, encourage children to work out how many pence Billy will have earned. They will identify that $97 \times 7\text{p}$ will allow them to do this, and they should be encouraged to calculate this according to your school's calculation policy. Some children may also identify that they can work out the answer to this by carrying out 100×7 and then subtracting 21 (3×7).

Then, encourage children to consider how many pence are in a pound, identifying that there are 100p in £1. They should then identify that to convert between pence and pounds, they need to divide by 100, and therefore that the answer in pounds and pence is £6.79.

Q1

Ushi has a box of 220 cubes.
She uses some of the cubes to build
a tall tower.
109 cubes are left over.

How many cubes has she used?

	cubes
--	-------

1 mark

Q2

Mel thinks of a **whole** number.
She multiplies it by 4.
She rounds her answer to the nearest 10.
The result is 200.

Write **ALL** the possible numbers that Mel
could have started with.

2 marks

Q3

What is 382 minutes in hours and minutes?

	hours		minutes
--	-------	--	---------

1 mark

Q1

Ushi has a box of 220 cubes.
She uses some of the cubes to build
a tall tower.
109 cubes are left over.

How many cubes has she used?

111 cubes

1 mark

Q2

Mel thinks of a **whole** number.
She multiplies it by 4.
She rounds her answer to the nearest 10.
The result is 200.

Write **ALL** the possible numbers that Mel
could have started with.

49

50

51

2 marks

Q3

What is 382 minutes in hours and minutes?

6

hours

22

minutes

1 mark

	Requirement	Mark	Additional guidance
Q1	111 cubes	1	
Q2	Award TWO marks for 49 and 50 and 51. Award ONE mark for: only two correct numbers and no incorrect number OR 49,50 and 51 AND not more than one incorrect number.	2	Numbers can be written in any order.
Q3	6 hours, 22 minutes	1	

Q1

Tick the **TWO** numbers below which are 10 away from 8,000.

7,890

☐

8,010

☐

8,110

☐

7,990

☐

8,100

☐

1 mark

Q2

Fill in the missing numbers.

$$4 \square 4 + 38 \square = 851$$

1 mark

Q3

Here are four number cards:

3	9	7	11
---	---	---	----

Which **TWO** number cards are factors of 42?

	and	
--	-----	--

1 mark

Q1

Tick the **TWO** numbers below which are 10 away from 8,000.

7,890

☐

8,010

☒

8,110

☐

7,990

☒

8,100

☐

1 mark

Q2

Fill in the missing numbers.

$$4 \boxed{6} 4 + 38 \boxed{7} = 851$$

1 mark

Q3

Here are four number cards:

3

9

7

11

Which **TWO** number cards are factors of 42?

3

and

7

1 mark

	Requirement	Mark	Additional guidance
Q1	7,990 and 8,010 both identified.	1	
Q2	$464 + 387 = 851$	1	
Q3	3 and 7	1	Accept in either order.

Q1

Circle two decimals that have a difference of 0.2.

0.1 0.22 0.41 0.63 0.3 0.75

1 mark

Q2

Look at the calculation below.

$$\square \square \times 4 = 100$$

Complete the boxes to make the calculation correct.

1 mark

Q3

George thinks of a **whole** number.

He multiplies it by 6.

He rounds his answer to the nearest 10.

The result is 220.

Write **ALL** the possible numbers that George could have started with.

2 marks

Q1

Circle two decimals that have a difference of 0.2.

0.1 0.22 0.41 0.63 0.3 0.75

1 mark

Q2

Look at the calculation below.

$$\boxed{2} \boxed{5} \times 4 = 100$$

Complete the boxes to make the calculation correct.

1 mark

Q3

George thinks of a whole number.

He multiplies it by 6.

He rounds his answer to the nearest 10.

The result is 220.

Write ALL the possible numbers that George could have started with.

36 and 37

2 marks

	Requirement	Mark	Additional guidance
Q1	0.1 and 0.3 circled	1	
Q2	25	1	
Q3	Award TWO marks for 36 and 37 Award ONE mark for: only one correct numbers and NO incorrect number OR 36 and 37 AND not more than one incorrect number.	2	



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