| Name:   |                                     | Date:   | Date: 0 |  | Class/Group:                                   |  |      |
|---|-------------------------------------|---|---------|--|--|--|------|
| A: Place Value, Add, Subtract, Multiply a   | B: Fractions, Ratio, Proportion and | l Algebi  | ra      | C: Measure and Geometry  |  |  |      |
| 1. Write five million, seventy one thousand, and eighty four in digits.             | 6:1                                 | 11. Which is the $\frac{1}{2}$ , $\frac{3}{8}$ or <b>largest</b> fraction?        | 6:7     | 21. How many <b>kil</b><br>approximately eq                          | ometres are                                    | 6:18                                   |      |
| 2. What is the value of the <b>5</b> in this number? 3,954,682                      | 6:1                                 | 12. $\frac{2}{3} - \frac{4}{7} =$   |         | 6:8  | 22. Give <b>two</b> poss<br>rectangle with a p | sible areas of a<br>perimeter of 10cm. | 6:20 |
| 3. Round 4.953 to 2 decimal places.   | 6:1                                 | 13. Simplify $\frac{5}{6} \times \frac{4}{9} =$<br>your answer.                   |         |  |  | <b>ıla</b> to show how to<br>triangle. | 6:21 |
| 4. Write the smallest possible crowd.<br>Attendance: 8,200 (to the nearest hundred) | 6:2                                 | 14. 57,389 ÷ 1000   | 6:10    | 24. Calculate the <b>volume</b> of<br>a cube with a 6cm side length. |  | 6:22                                   |      |
| 5. 4,313 x 11   | 6:3                                 | 15. 9.42 x 4  |         | 6:11   |  |  | 6:23 |
| 6. 784 ÷ 16   | 6:3                                 | 16. Write this percentage as a <b>fraction</b> and a <b>decimal</b> .             |         | 6:12   | Use a ruler and a protractor.                  | 85° 4                                  |      |
| 7. Which is a <b>common multiple</b> of 12<br>and 15? 24 30 60 75 84                | 6:4                                 | 17. Find <b>40%</b> of 360.   |         | 6:13   |  |  |      |
| 8. Which <b>factor</b> of 49 is also a <b>prime number</b> ?                        | 6:4                                 | 18. In a class of 35 pupils, $\frac{4}{7}$ are girls.<br>How many boys are there? |         | 6:14   |  |  |      |
| 9. (12 - 9) x (9 + 7)   | 6:5                                 | 19. How much will<br>a 7 minute call cost? Call charge: 25p<br>+ 9p per minute.   |         | 6:15   |  |  |      |
| 10. I have £10. I buy 2 coffees at £1.73<br>each. How much do I have left?          | 6:6                                 | 20. What is the <b>10<sup>th</sup> term</b> of this sequence? 2, 8, 14, 20, 26,   |         | 6:16   |  | 5cm                                    |      |
| Total (A)   |                                     | Total (B)   |         |  |  | tal (C)                                |      |
| Test Total (A+B+C)  |                                     | R (0-9)   |         | Y (10  | 10-19) G (20-25)                               |  |      |

#### Maths Key Skills

Name: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_

Class/Group: \_\_\_\_\_

| A: Place Value, Add, Subtract, Multiply   | and Divide                      | B: Fractions, Ratio, Proportion and Alge   | bra                              | C: Measure and Geometry   |   |
|---|---------------------------------|--|----------------------------------|---|---|
| 1. Write five million, seventy one thousand, and eighty four in digits.             | 6:1<br><b>5,071,084</b>         | 11. Which is the <b>argest</b> fraction? $\frac{1}{2}$ , $\frac{3}{8}$ or $\frac{7}{16}$ | 6:7<br><u>1</u><br>2             | 21. How many <b>kilometres</b> are approximately equal to 10 <b>miles</b> ? | 6:18<br><b>16</b>   |
| 2. What is the value of the <b>5</b> in this number? 3,954,682                      | 6:1<br><b>50,000</b>            | 12. $\frac{2}{3} - \frac{4}{7} =$  | 6:8<br>2<br>21                   | 22. Give <b>two</b> possible areas of a rectangle with a perimeter of 10cm. | 6:20<br>4cm <sup>2</sup> ,<br>6cm <sup>2</sup>              |
| 3. Round 4.953 to 2 decimal places.   | 6:1<br><b>4.95</b>              | 13. Simplify $\frac{5}{6} \times \frac{4}{9} =$  | 6:9<br><u>10</u><br>27           | 23. Write a <b>formula</b> to show how to find the area of a triangle.      | $\frac{\frac{6:21}{1}}{2} \mathbf{b} \mathbf{x} \mathbf{h}$ |
| 4. Write the smallest possible crowd.<br>Attendance: 8,200 (to the nearest hundred) | <sup>6:2</sup><br><b>8,150</b>  | 14. 57,389 ÷ 1000  | 6:10<br><b>57.389</b>            | 24. Calculate the <b>volume</b> of a cube with a 6cm side length.           | 6:22<br><b>216</b>  |
| 5. 4,313 x 11   | <sup>6:3</sup><br><b>47,443</b> | 15. 9.42 x 4   | 6:11<br><b>37.68</b>             | 25. Draw this triangle <b>accurately</b> below: 5cm                         | 6:23<br>Shape   |
| 6. 784 ÷ 16   | 6:3<br><b>49</b>                | 16. Write this percentage as a <b>fraction</b> and a <b>decimal</b> .                    | $\frac{\frac{6:12}{9}}{20}$ 0.45 | Use a ruler and<br>a protractor.  | drawn<br>with   |
| 7. Which is a <b>common multiple</b> of 12<br>and 15? 24 30 60 75 84                | 6:4<br><b>60</b>                | 17. Find <b>40%</b> of 360.  | 6:13<br><b>144</b>               |   | 85° (+/-<br>2°)<br>angle                                    |
| 8. Which <b>factor</b> of 49 is also a <b>prime number</b> ?                        | 6:4<br><b>7</b>                 | 18. In a class of 35 pupils, $\frac{4}{7}$ are girls.<br>How many boys are there?        | 6:14<br><b>15</b>                | 5cm   | and<br>5cm  |
| 9. (12 - 9) x (9 + 7)   | 6:5<br><b>48</b>                | 19. How much will<br>a 7 minute call cost? Call charge: 25p<br>+ 9p per minute.          | 6:15<br>88p                      |   | (+/-<br>2mm)  |
| 10. I have £10. I buy 2 coffees at £1.73<br>each. How much do I have left?          | 6:6<br><b>£6.54</b>             | 20. What is the <b>10<sup>th</sup> term</b> of this sequence? 2, 8, 14, 20, 26,          | 6:16<br><b>56</b>                | 85°   | side<br>length  |
| Total (A)   |                                 | Total (B)  |                                  | Total (C)   |   |
| Test Total (A+B+C)  |                                 | R (0-9)  | Y (1                             | G (20-25)   |   |

#### Maths Key Skills

| Name:  | Date:                      |   | Class/Group: |   |      |
|--|----------------------------|---|--------------|---|------|
| A: Place Value, Add, Subtract, Multiply a  | and Divide                 | B: Fractions, Ratio, Proportion and A                                       | lgebra       | C: Geometry, Position and Direction                           |      |
| 1. Write in words: <b>2,134,005</b>  |                            | 11. Simplify this fraction fully: 9<br>30                                   | 6:7          | 21. Find the missing angle. $83^{\circ}$ $64^{\circ}$         | 6:24 |
| 2. What is the value of the <b>3</b> in this number? 3,954,682                             |                            | 12. $1\frac{5}{6} + \frac{1}{4} =$  | 6:8          | 22. On the circle<br>draw a line to                           | 6:25 |
| 3. Round <b>8,523,912</b> to the nearest <b>ten thousand</b> .                             | 6:1                        | 13. $\frac{2}{8} \div 4 =$  | 6:9          | label the <b>diameter</b> .                                   |      |
| 4. The temperature rises from -7°C to<br>9°C. How many degrees has it risen?               | 6:2                        | 14. What is the value of the <b>8</b> in this number: 64.381                | 6:10         | 23. Find the value of <b>a</b> .                              | 6:26 |
| 5.       2,355 x 16       6:3         6. What is the remainder?       3,300 ÷ 19       6:3 |                            | 15. Give your answer as a decimal:<br>43.5 ÷ 6                              | 6:11         | 24. What are the co-ordinates of <b>A</b> ?                   | 6:27 |
|  |                            | 16. Write this fraction as a <b>decimal</b> and a <b>percentage</b> . $(3)$ |              | 4   |      |
| 7. Write <b>two common factors</b> of 30 and 45.   |                            | 17. Find <b>20%</b> of 180.   | 6:13         |   |      |
| 8. There are <b>four prime numbers</b> <sup>6:4</sup> between 10 and 20. What are they?    |                            | 18. These shapes<br>are <b>similar</b> .                                    | 6:14         | -1 C B  |      |
| 9. 85 - 8 x 7  | 6:5                        |   | 6:15<br>S.   | -4 A  | 6:28 |
| 10. What is my change if I buy as many £5.98 footballs as I can with £30?                  |                            | 20. Which two numbers add together to make 25 and have a difference of 1?   |              | 25. <b>Reflect</b> triangle <b>ABC</b> in the <b>x-axis</b> . | 0.20 |
| Total (A)  | Total (B)                  |   |              | Total (C)   |      |
| Test Total (A+B+C)   | Test Total (A+B+C) R (0-9) |   | Y            | r (10-19) G (20-25  | 5)   |

#### Maths Key Skills

| Name:   |                                    |   | Date:  |                                    | С   | lass/Group:                                 |                    |
|---|------------------------------------|---|--|------------------------------------|---|---|--------------------|
| A: Place Value, Add, Subtract, Multiply and Divide  |                                    |   | B: Fractions, Ratio, Proportion and Algebra  |                                    | C: Geometry, Position and Direction                           |   |                    |
| 1. Write in words:<br>2,134,0056:1<br>Two million, one hundred and<br>thirty four thousand and five                                     |                                    | 11. Simplify this fraction fully:                                     | <u>9</u><br>36   | 6:7<br><u>1</u><br><u>4</u>        | 21. Find the missing angle. 83° 64°                           | 6:24<br><b>109°</b>                         |                    |
| 2. What is the value number? 3,9  | of the <b>3</b> in this<br>954,682 | 6:1<br>3,000,000<br>(million)   | 12. $1\frac{5}{6} + \frac{1}{4} =$   |                                    | 6:8<br>2 1<br>12  | 22. On the circle<br>draw a line to         | 6:25               |
| 3. Round <b>8,523,912</b><br>thousand.  | to the nearest <b>ten</b>          | 6:1<br><b>8,520,000</b>   | 13. $\frac{2}{8} \div 4 =$   |                                    | 6:9<br><u>1</u><br>16   | label the <b>diameter</b> .                 | drawn              |
| 4. The temperature<br>9°C. How many deg   |                                    | 6:2<br><b>16°C</b>  | 14. What is the value of the <b>8</b> in th<br>number: 64.381                          | nis                                | 6:10<br><b>8</b><br><b>100</b>                                | 23. Find the value of <b>a</b> .            | 6:26<br><b>60°</b> |
| 5. 2,355  | x 16                               | 6:3<br><b>37,680</b>  | 15. Give your answer as a decimal<br>43.5 ÷ 6  | :                                  | 6:11<br><b>7.25</b>   | 24. What are the co-ordinates of <b>A</b> ? | 6:27               |
| 6. What is the remainder?<br>3,300 ÷ 19 <b>13</b>   |                                    | 16. Write this fraction as a <b>decimal</b> and a <b>percentage</b> . | 35   | 6:12<br><b>0.6,</b><br><b>60%</b>  |   |   |                    |
| 7. Write two common factors of 30 and 45.         6:4           1, 5, 15  |                                    | 17. Find <b>20%</b> of 180.   |  | 6:13<br><b>36</b>                  |   | (3, -4)                                     |                    |
| 8. There are four prime numbers         6:4           between 10 and 20. What are they?         11, 13,           17, 19         17, 19 |                                    | 18. These shapes<br>are <b>similar</b> . ? 12cm 4cm                   |  | 6:14<br>3cm                        |   |   |                    |
| 9. 85 - 8   | x 7                                | <sup>6:5</sup><br><b>29</b>   | 19. 1 bag has <b>s</b> sweets. I get 2 bags.<br>Write an expression for no. of sweets. |                                    | 6:15<br>2 x s<br>(or 2s)                                      | -4 A  | 6:28               |
| 10. What is my change if I buy as many<br>£5.98 footballs as I can with £30?6:6 <b>10p</b>  |                                    | 20. Which two numbers add together                                    |  | 6:17<br><b>12 and</b><br><b>13</b> | 25. <b>Reflect</b> triangle <b>ABC</b> in the <b>x-axis</b> . | Shape<br>drawn                              |                    |
| Total (A) Total (B)   |                                    |   |  | Total (C)                          |   |   |                    |
| Test Total (A+B+C) R (0-9)  |                                    | R (0-9)   |  | Y (10                              | O-19) G (20-2   | 5)  |                    |

#### Year 6 | Week 3 | Day 1

°C



Match the decimal fractions to their fraction equivalents.

| <u>1</u><br>5    | 0.3  |
|------------------|------|
| <u>30</u><br>100 | 0.2  |
| <u>1</u><br>4    | 0.6  |
| <u>6</u><br>10   | 0.72 |
| 72<br>100        | 0.25 |

2 marks

**Q2** This temperature scale shows the average temperature in a city.

a Look at the arrow. What is the average temperature in winter?

The average temperature in summer is 23°C **higher** than winter.

b What is the average temperature in summer?

1 mark

1 mark

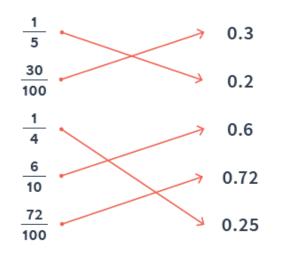
Q3Place these lengths in order, starting with<br/>the longest.3.5m310,000cm340cm320mm30,000mm3kmLongest

°C

## **Rapid Reasoning** | Answers



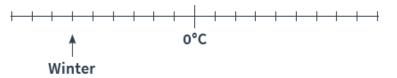
Match the decimal fractions to their fraction equivalents.



2 marks

**Q**3

**Q2** This temperature scale shows the average temperature in a city.

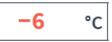


Look at the arrow. What is the average temperature in winter?

The average temperature in summer is 23°C higher than winter.

b What is the average temperature in summer?



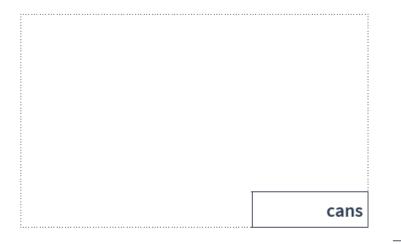


Year 6 | Week 3

#### Year 6 | Week 3 | Day 2

- Q1
- At the start of May, there were 3,043 cans of fizzy orange in the shop. During May,
- 11,392 more cans of fizzy orange were delivered
- 13,832 cans of fizzy orange were sold.

How many cans of fizzy orange were left in the shop at the end of June?







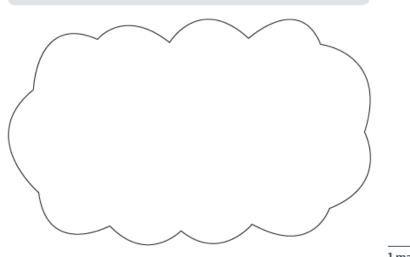
Evie eats  $\frac{3}{4}$  of a 120g chocolate bar. Josh eats 70% of a 120g chocolate bar.

Circle the name of the person that eats the most chocolate.

Evie

Explain how you know.

Josh



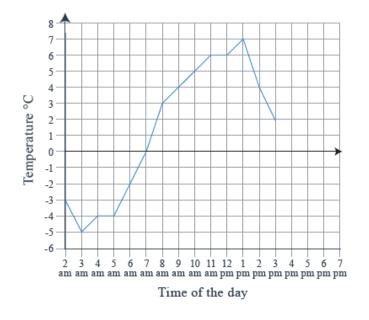
1 mark

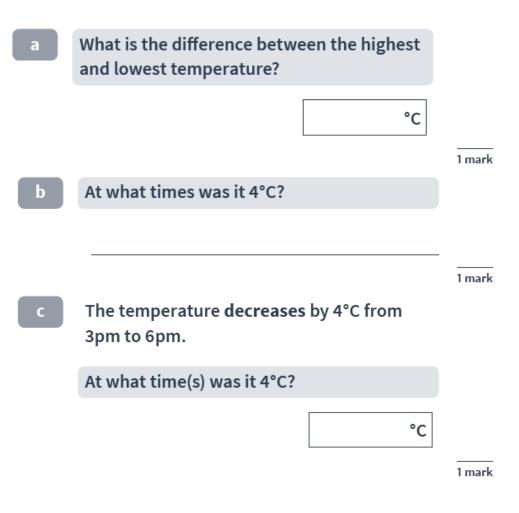
#### Year 6 | Week 3 | Day 2

**Q**3

Tallulah records the temperature outside on a cold Saturday in Norwich.

She plots her readings on a line graph.





# Rapid Reasoning | Mark Scheme

|     | Requirement   | Mark | Additional guidance  |
|-----|---|------|--|
| Q1  | Award <b>TWO</b> marks for the correct answer of 603.   | 2    |  |
|     | Award <b>ONE</b> mark for evidence of a <b>complete</b> method with no more than one arithmetic error.  |      |  |
|     | For example:<br>3,043 + 11,392 = 14,435<br>14,435 – 13,832 = wrong answer.  |      |  |
| Q2  | Award <b>ONE</b> mark for <b>BOTH</b> the correct identification<br>of 'Evie' <b>AND</b> an explanation that explains why $\frac{3}{4}$ is a<br>larger proportion than 70% for example: | 1    | Do <b>NOT</b> accept vague explanations, including<br>explanations that compare the proportions<br>without explanation.                    |
|     | $\frac{3}{4}$ is the same as 75%. 75% is larger than 70%  |      | For example, do <b>NOT</b> accept either:  |
|     | OR  |      | <sup>3</sup> / <sub>4</sub> is bigger than 75%   |
|     | $\frac{3}{4}$ of 120 = 90, 70% of 120 = 84.   |      | OR   |
|     |   |      | 70% is smaller than $\frac{3}{4}$ .  |
| Q3a | 12°C  | 1    | Do not accept –12.   |
| Q3b | 9am and 2pm   | 1    | <b>BOTH</b> must be present for the award of the mark. AM/PM must be present or times given in 24 hour clock format (i.e 09:00 and 14:00). |
| Q3c | -2°C  | 1    | Do not accept 2.   |

| Q1 | Match the decimal fractions to fraction equivalents.              | o their         |         | <b>Q</b> 3 | The area of this square is 100cm <sup>2</sup> .  |
|----|---|-----------------|---------|------------|--|
|    | <u>35</u><br>100  | 0.6             |         |            | Area = Not to scale  |
|    | 22<br>100   | 0.35            |         |            |  |
|    | <u>3</u><br>4   | 0.75            |         |            | The square is split into five identical<br>rectangles.                                 |
|    | <u>3</u><br>5   | 0.8             |         |            |  |
|    | <u>80</u><br>100  | 0.22            | 2 marks |            | Not to scale   |
| 02 | Tallulah is thinking of a numb                                    | or              | Z marks |            |  |
| Q2 | Tallulah is thinking of a numb<br>She doubles it.<br>She adds 12. |                 |         |            | What is the <b>perimeter</b> of <b>one</b> of the rectangles? Don't forget your units. |
|    | She divides her answer by 4 aı<br>Her answer is 18.               | nd subtracts 3. |         |            |  |
|    | What was the number that Ta<br>with?                              | llulah started  |         |            |  |
|    | I   |                 |         |            |  |

# Rapid Reasoning | Mark Scheme

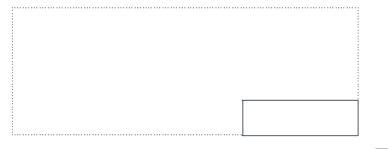
|     | Requirement  | Mark | Additional guidance   |
|-----|--|------|---|
| Q1a | Award <b>TWO</b> marks for all five correctly matched:<br>$35 \\ 100 \\ 22 \\ 100 \\ 0.35$   | 2    |   |
|     | $\begin{array}{c} \frac{3}{4} \\ \frac{3}{5} \\ \frac{3}{5} \\ 100 \end{array} \qquad 0.8 \\ 0.22 \\ \text{Award ONE mark for three correctly matched.} \end{array}$   |      |   |
| Q2  | Award <b>TWO</b> marks for the correct answer of 36.<br>Award <b>ONE</b> mark for a complete correct method, with<br>no more than one arithmetic error.                | 2    |   |
| Q3  | Award <b>TWO</b> marks for the correct answer of:<br>$4\frac{1}{2}$ or $4\frac{2}{4}$ (or any equivalent).<br>Award <b>ONE</b> mark for the answer of $\frac{18}{4}$ . | 2    | Correct units must be given for the award<br>of <b>TWO</b> marks.<br>Answer of 24cm <sup>2</sup> would be credited with<br><b>ONE</b> mark. |

#### Year 6 | Week 3 | Day 4

- Q1
- Josh posts four large letters. The postage costs the same for each letter. He pays with a £20 note.

His change is £14.28.

| What is the cost of posting <b>one</b> letter? |
|--|
| Don't forget to add units.                     |



2 marks

**Q2** Here are some digit cards.



Write all four digit numbers above 6,500 that can be made using these digit cards.

2 marks

#### Year 6 | Week 3 | Day 4

٠

**Q**3

Here is a timetable showing the bus times from Great Yarmouth to Norwich.

| Great<br>Yarmouth | 9.35  | 9.55  | 10.15 | 10.35 |
|-------------------|-------|-------|-------|-------|
| Acle              | 9.45  | 10.05 | 10.25 | 10.45 |
| Blofield          | 10.01 | 10.21 | 10.41 | 11.01 |
| Thorpe            | 10.23 | 10.43 | 11.03 | 11.23 |
| Norwich           | 10.55 | 11.15 | 11.35 | 11.55 |

How many minutes does the bus take to get from Great Yarmouth to Thorpe?

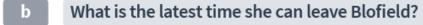
minutes

.

1 mark

1 mark

Rachel needs to be in Norwich for 11:30.

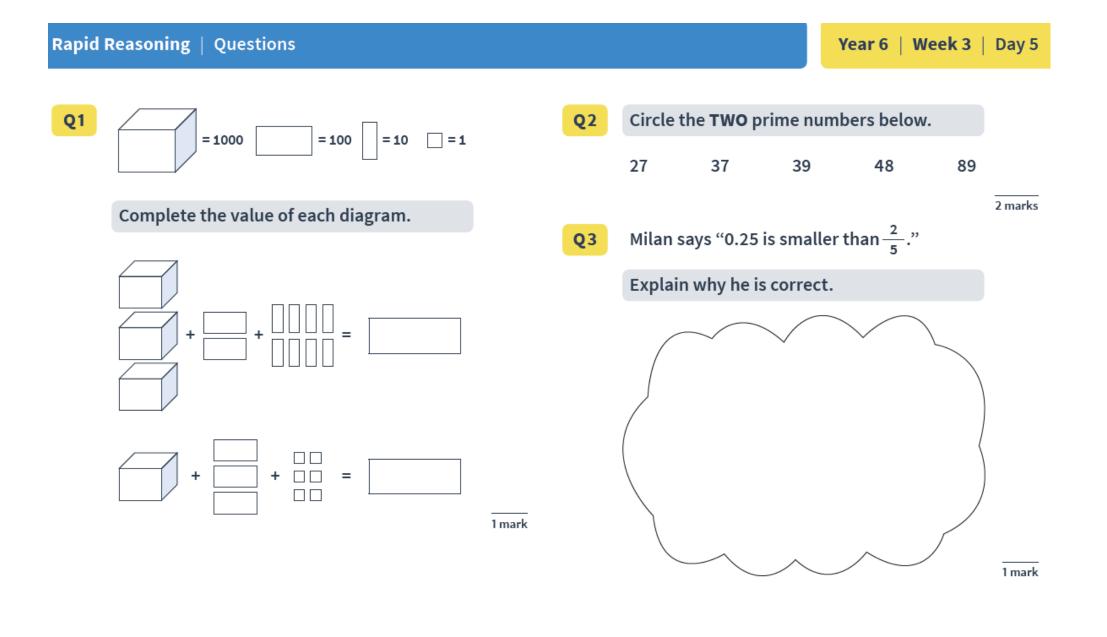


One day, the 10:35 bus from Great Yarmouth is running 18 minutes late.

What time will the bus get to Acle?

1 mark

|     | Requirement  | Mark | Additional guidance   |
|-----|--|------|---|
| Q1  | Award <b>TWO</b> marks for the correct answer of £1.43.<br>Award <b>ONE</b> mark for:<br>• 1.43 or 1.43p<br><b>OR</b><br>• a complete method, with up to one arithmetic error<br>• e.g. £20 – £14.28 = £5.72<br>• £5.72 ÷ 4 = wrong answer.  | 2    | Correct units must be given for the award of<br>TWO marks.                            |
| Q2  | Award TWO marks for ALL ten correct answers, without<br>duplication, as shown below.6,5486,5846,8546,8458,4568,4658,6458,6548,5648,546Award ONE mark for either:<br>a) 10 correct answers and up to two incorrect answers<br>b) 10 correct answers, plus duplication<br>c) Five or more correct answers and NO incorrect<br>answers. | 5    | Answers can be given in any order. Commas are<br>not required for the award of marks. |
| Q3a | 48 minutes   | 1    |   |
| Q3b | 10.21  | 1    |   |
| Q3c | 11.03  | 1    |   |



# Rapid Reasoning | Mark Scheme

| Year 6 | Week 3 | Day 5 |
|--------|--------|-------|
|--------|--------|-------|

|    | Requirement  | Mark | Additional guidance   |
|----|--|------|---|
| Q1 | Award ONE mark for both: 3,280 AND 1,306   | 1    |   |
| Q2 | Award <b>TWO</b> marks for both:<br>37 <b>AND</b> 89 circled.  | 2    |   |
|    | Award <b>ONE</b> mark for either<br>37 <b>OR</b> 89 circled with no incorrect answers circled.   |      |   |
| Q3 | Award <b>ONE</b> mark for an explanation showing that<br>0.25 is less than $\frac{2}{5}$ , e.g.<br>• 0.25 is 25% and is 40% and 25% is smaller<br>than 40%<br>• 0.25 is $\frac{5}{20} < \frac{8}{20}$<br>• 0.25 is $\frac{1}{4}$ and you need 8 quarters to make 2, but<br>only 5 lots of $\frac{2}{5}$ to make 2<br>• $\frac{2}{5} = 0.4$ . | 1    | <ul> <li>Do NOT accept vague or inaccurate explanations, e.g.</li> <li>because <sup>1</sup>/<sub>4</sub> is bigger than <sup>2</sup>/<sub>5</sub></li> <li>because <sup>1</sup>/<sub>4</sub> comes first on a number line.</li> </ul> |