## Please make sure that you print this resource at $100 \%$ so that all measurements are correct. To do this, follow the relevant steps below.

## Adobe Reader or Adobe Acrobat

- Adobe Reader is a free PDF viewer, from Adobe. To install a copy of Adobe Reader, go to https://get.adobe.com/uk/reader/.
- Once Adobe Reader is installed, open your PDF.
- Go to File>Print.
- Under ‘Page Sizing \& Handling', select ‘Size’.
- From here, make sure that 'Actual Size' is selected.
- Print this page as a test, making sure that the shape below is the correct size once printed.
- If the test print is correct, print your PDF.


## Foxit Reader

- Go to File>Print.
- Set the 'Scaling' to 'None'.
- Print this page as a test, making sure that the shape below is the correct size once printed.
- If the test print is correct, print your PDF.


## Web Browser

- If printing from a web browser, such as Chrome, Firefox or Microsoft Edge make sure that your printer is set to print at $100 \%$, either by unticking 'Fit to Page' or selecting 'Actual Size'.
- Print this page as a test, making sure that the shape below is the correct size once printed.
- If the test print is correct, print your PDF.

$\square$
$\square$


## Year 5 Reasoning Test Set 3 Paper A

1. Continue these linear sequences:
a) $45627,46627,47627$,
b) 232 701, 222 701, 212 701, $\qquad$
$\qquad$
$\qquad$ .
2. Fill in the missing digits in this calculation:

3. Measure the length of the longer and shorter side of this rectangle:
$\square$
4. Some children measured the width of a puddle in the school playground over 1 school day. They used the data collected to draw a time graph

a) When does the graph tell you it started raining? $\qquad$
b) When was the width of the puddle 20 cm ?
5. Draw all the lines of symmetry for these shapes:
a) A rectangle
b) An isosceles triangle

6. Order the following numbers from smallest to largest:

| 101101 | 1100001 | 100110 | 1010010 | 1001100 |
| :--- | :--- | :--- | :--- | :--- | |  |  |  |  |
| :--- | :--- | :--- | :--- |

7. Write the year that is 48 months after 2009 in numerals and Roman numerals.
$\qquad$
8. What number is 28 less than 12 ?
$\qquad$
9. A pack of 3 water bottles weighs 2.25 kg . How much will 10 water bottles weigh?

10. Sam asked the children in his school what their favourite sport was.

123 children were asked, but only those who gave an answer were recorded.
Here is a bar chart showing the results.


How many children did not choose a favourite sport?

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

11. Draw a line that is $134^{\circ}$ from this line.
12. A teacher has 3 boxes of rubbers, each containing 24 rubbers. The rubbers are divided equally among 8 classes. How many rubbers are given to each class?

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

13. Order the following sets of fractions from smallest to largest:
a) $\frac{3}{8} \quad \frac{7}{8} \quad \frac{5}{8} \quad \frac{1}{8}$

b) $\frac{5}{6} \quad \frac{1}{3} \quad \frac{7}{12} \quad \frac{1}{6} \quad \frac{11}{12}$ $\square$
14. A shop sells one-litre bottles of milk for 80 p and two-litre bottles for $£ 1.45$. It has an offer of buy 2 one-litre bottles of milk and get a 10\% discount.

What is the cheapest way to buy 2 litres of milk?

15. Shape $A$ has been translated to shape $B$ on this centimetre grid.

|  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Describe the translation.
$\qquad$
$\qquad$
16. Which number less than 100 is a square number and a cube number?
17. a) Write all the factor pairs of 36 .
$\qquad$
$\qquad$
b) Write all the common factors of 24 and 32.
$\qquad$
$\qquad$
18. Order the following from smallest to largest.
b) Write all the common factors of 24 and 32 .


| $\frac{1}{2}$ of 54 |
| :---: |
| $\frac{3}{4}$ of 40 |
| $\frac{2}{3}$ of 42 |


19. A shop sells 3 different bottles of water.

Jemima is asked to buy some water in different sized bottles. She has $£ 5$.



What is the smallest amount of change she can receive? She buys at least one of each bottle. Show your workings out below.

20. Write the percentage of each grid that is shaded:
a)

b)

|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


**END OF TEST ${ }_{* *}$

