

Name:

Date:

Year 4 Reasoning Test Set 3 Paper B

1. A bag of footballs contains 4 balls. A teacher needs 15 balls for a PE lesson. How many bags of balls will the teacher need?

2 marks

2. Order these fractions from smallest to largest.

$\frac{1}{2}$ $\frac{1}{5}$ $\frac{1}{3}$

1 mark

3. Continue these linear sequences:

a)




| | | | | | |
|----|----|--|----|--|--|
| 21 | 28 | | 42 | | |
|----|----|--|----|--|--|


b)

| | | | | | |
|----|----|----|--|--|--|
| 25 | 50 | 75 | | | |
|----|----|----|--|--|--|

2 marks

4. Some children count the number of different coloured balls in the PE cupboard.

| Ball Colour | Number of Balls |
|-------------|---|
| Yellow |  |
| Red | |
| Green |  |
| Blue |  |


represents
4 balls

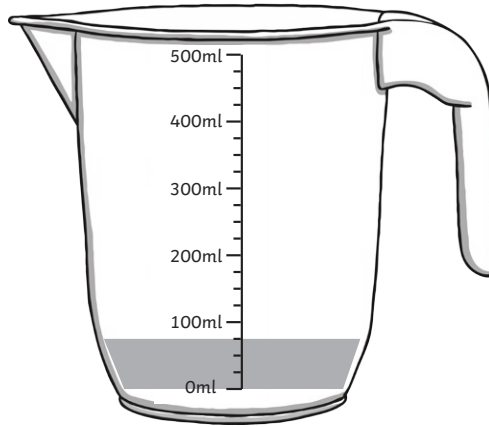
a) There are 21 red balls in the cupboard. Complete the pictogram by drawing the correct representation for the 21 red balls.

b) How many more green balls are there than yellow balls?

2 marks

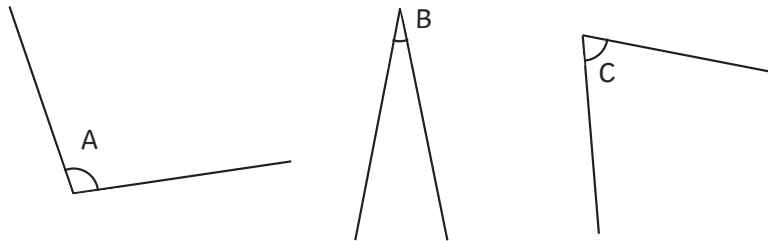
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5. A teacher makes a jug of squash. Here is the jug with the concentrate. 350ml of water is added. Draw a line where the level of the squash will come to in the jug.



1 mark

6. Here are 3 angles marked A, B and C. Order the angles from smallest to largest in the grid below.



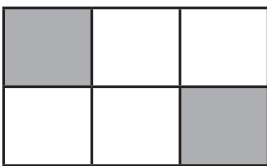
Smallest

| | | |
|--|--|--|
| | | |
|--|--|--|

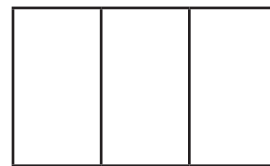
Largest

2 marks

7. Here is a fraction represented by a shaded rectangle.



Shade the equivalent fraction in this rectangle.



1 mark

8. Write the 2 missing digits to make this multiplication correct:

$$\begin{array}{r}
 4 \square 2 \\
 \times \quad \square \\
 \hline
 3776
 \end{array}$$

2 marks

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12. a) Ring the calculation that gives the same answer as the expression $2.3 \div 10$

$23 \div 100$

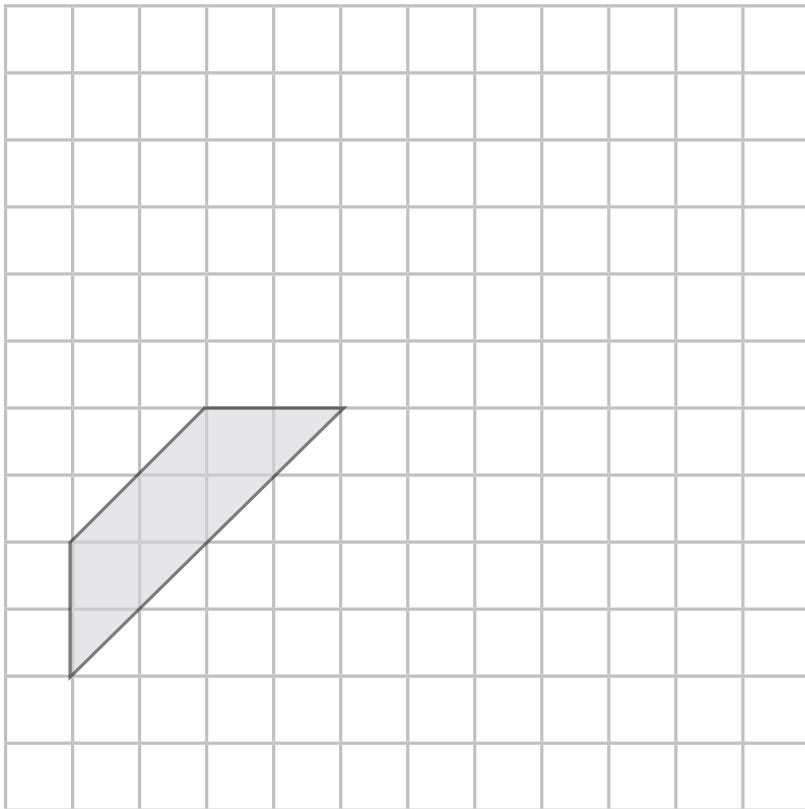
$2.3 \div 100$

$0.23 \div 100$

b) In the answer to $78 \div 100$, what will be the value of the 7?

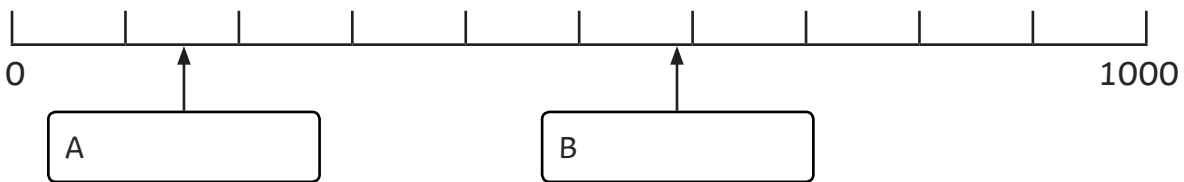
2 marks

13. In the grid below, translate the shape 6 squares to the right and 4 squares up.



2 marks

14. On the number line below write the values of A and B.



2 marks

total for this page

15. Here are the names of 5 triangles and quadrilaterals;

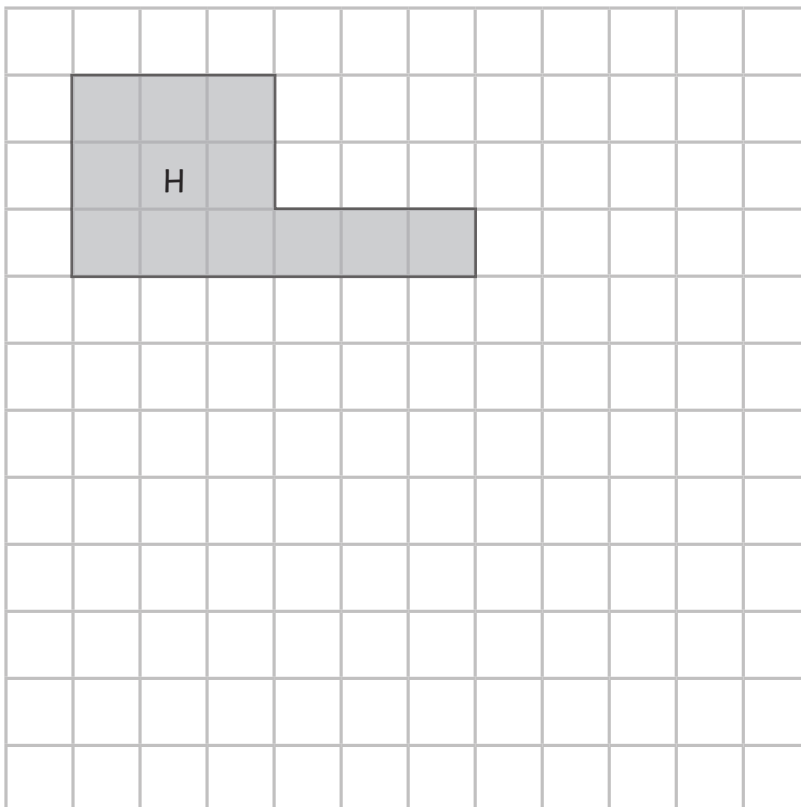
- rhombus
- equilateral triangle
- square
- right-angled triangle
- trapezium

Write the name of each shape in the Carroll diagram according to their properties.

| | A triangle | A quadrilateral |
|------------------------------|------------|-----------------|
| Has at least one right angle | | |
| Has no right angles | | |

2 marks

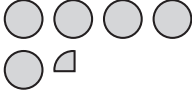
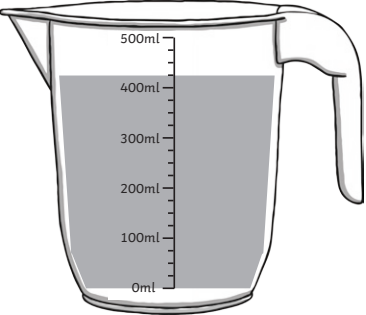

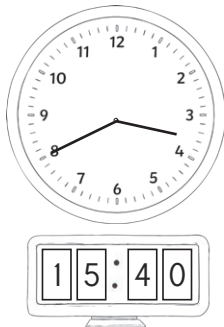
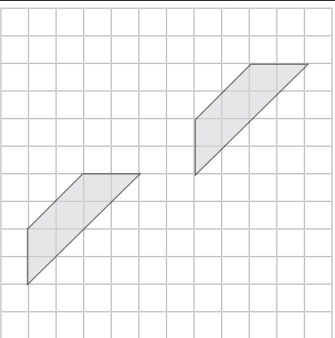
16. On the grid, draw a rectangle with the same area as shape H.



2 marks

END OF TEST

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| | | | | | | | | | | | | |
|------------------------------|---|--|------------|-----------------|------------------------------|-----------------------|--------|--|----------------------|-------------------|---|---------|
| 1 | 4 bags of balls | 2 marks for correct answer. 1 mark for correct method with 1 mistake in calculating. | 2 marks | | | | | | | | | |
| 2 | $\frac{1}{5}$ $\frac{1}{3}$ $\frac{1}{2}$ | | 1 mark | | | | | | | | | |
| 3 | a) 35, 49, 56 b) 100, 125, 150 | | 2 marks | | | | | | | | | |
| 4 | a)  b) 7 | Allow a degree of error for the $\frac{1}{4}$ ball as long as the intention is clear. | 2 marks | | | | | | | | | |
| 5 |  | | 1 mark | | | | | | | | | |
| 6 | BCA | 2 marks for correct answer. 1 mark for 1 angle in the correct place. | 2 marks | | | | | | | | | |
| 7 |  | 1 mark for any $\frac{1}{3}$ shaded including copy of the original by drawing horizontal line. | 1 mark | | | | | | | | | |
| 8 | $\begin{array}{r} 472 \\ \times 8 \\ \hline 3776 \end{array}$ | 1 mark for each correct answer. | 2 marks | | | | | | | | | |
| 9 | 27 pencils | 2 marks for the correct answer. 1 mark for correctly calculating $\frac{1}{4}$ of 36 = 9. | 2 marks | | | | | | | | | |
| 10 |  | 1 mark for each correct clock. | 2 marks | | | | | | | | | |
| 11 | <table border="1" data-bbox="885 526 1125 694"> <tr><td>94</td><td>LXIX</td></tr> <tr><td>69</td><td>XCIV</td></tr> <tr><td>47</td><td>XLVII</td></tr> </table> | 94 | LXIX | 69 | XCIV | 47 | XLVII | 2 marks for all correct. 1 mark for 1 or 2 correct. | 2 marks | | | |
| 94 | LXIX | | | | | | | | | | | |
| 69 | XCIV | | | | | | | | | | | |
| 47 | XLVII | | | | | | | | | | | |
| 12 | a) $23 \div 100$ b) 7 tenths | | 2 marks | | | | | | | | | |
| 13 |  | 2 marks for correct answer. 1 mark for correctly moving 6 to the right or 4 up. | 2 marks | | | | | | | | | |
| 14 | a) 150 b) 590 | 1 mark for each correct. Allow 148 - 152 inclusive. Allow 286 - 294 inclusive | 2 marks | | | | | | | | | |
| 15 | <table border="1" data-bbox="885 1411 1268 1635"> <tr> <td></td> <td>A triangle</td> <td>A quadrilateral</td> </tr> <tr> <td>Has at least one right angle</td> <td>right-angled triangle</td> <td>square</td> </tr> <tr> <td>Has no right angles</td> <td>equilateral triangle</td> <td>trapezium rhombus</td> </tr> </table> | | A triangle | A quadrilateral | Has at least one right angle | right-angled triangle | square | Has no right angles | equilateral triangle | trapezium rhombus | 2 marks for all correct. 1 mark for 4 correct. | 2 marks |
| | A triangle | A quadrilateral | | | | | | | | | | |
| Has at least one right angle | right-angled triangle | square | | | | | | | | | | |
| Has no right angles | equilateral triangle | trapezium rhombus | | | | | | | | | | |
| 16 | Rectangle with area of 12cm^2 . | Any rectangle acceptable as long as area is 12cm^2 . Allow for a minor error due to lines not being exactly on the lines or accurate. 1 mark for drawing a rectangle, or for drawing a different shape with the same area. | 2 marks | | | | | | | | | |