## Key Stage 2

Mathematics
Reasoning: Pack 1 Test 1a

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## Key Stage 2 Maths Reasoning: Pack 1 Test 1a

1. Order the following numbers from smallest to largest: $426,412,462,416,402$

2. Draw all the lines of symmetry on these quadrilaterals.

3. Draw lines to match the following calculations to the correct answers.
$56 \times 0$
56
$56 \div 1$

0
$56 \times 1$
4. Write the decimal equivalents to match the following fractions.

5. Children in a class walk around their local area. The graph shows how far they had travelled from school during the visit.

a) How far were the children from their school at 10:20?

b) For how long are the children at least 500 m away from school?

6.
a) Accurately measure these 2 lines.
$\qquad$

b) Write the difference in size between the 2 lines.

7. Continue the following sequence:
0.006, 0.012, 0.018,

8. A shop sells $T$ shirts and shorts for the following prices:


A mother buys 3 T-shirts and a pair of shorts for her son. She pays with a $£ 10$ and a $£ 5$ note. With what coins could she be given change?

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9. Complete this subtraction calculation:

10. James has to be home by 4.30 pm . He is 35 minutes late. Write the time he arrives home in 24 hour time.
11. The number $p$ is 20 more than number $q$.

Using algebra, write the relationship between $p$ and $q$.

12. Write all the factors of 24 :

13. Use the following line to draw an angle of $34^{\circ}$ at point $A$.

Use a ruler and a protractor or angle measurer.

$$
A \longrightarrow B
$$

14. A teacher needs 70 lengths of string cut to 40 cm each. If balls of string are 10 m long, how many balls will be needed.

15. Two numbers have a difference of 0.7 and a sum of 1 . What are the numbers?

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16. Circle the nets which will make a triangular prism.

17. Complete the triangles so that the number in the centre is the sum of the numbers on the outside.

18. Here is a shaded shape on a grid.

The shape is translated so that point $A$ moves to point $B$.
Draw the shape in its new position.

19. Round the number 347500 to the nearest 1000; 10000 and 100000.

To the nearest 1000

To the nearest 10000

To the nearest 100000
$\square$
$\square$
$\square$
20. Write down 3 numbers where the following are true:

The total of the 3 numbers is 20 .
The product of the 3 numbers is 90 .

21.Here are the ingredients for raspberry ripple ice cream.

250 g raspberries
225 g caster sugar
2 large eggs
4 large egg yolks
600 ml double cream
A mother has 5 litres of cream to make ice cream for a party. Sugar comes in 1 kg bags.
How many bags of sugar will be needed?


Answer Sheet: Key Stage 2 Maths Reasoning: Pack 1 Test 1a

| question | answer | marks | notes |
| :---: | :---: | :---: | :---: |
| 1. |  |  |  |
|  | 402, 412, 416, 426, 462 | 1 |  |
| 2. |  |  |  |
|  |  | 2 |  |
| 3. |  |  |  |
|  |  | 1 | 1 mark for all correct. |
| 4. |  |  |  |
|  | $\begin{aligned} & \hline 0.25 \\ & 0.5 \\ & 0.75 \end{aligned}$ | 1 |  |
| 5. |  |  |  |
| a | 600m | 1 |  |
| b | Answers between 36 and 40 minutes inclusive. | 1 | . |
| 6. |  |  |  |
| a | 10.3 cm or 103 mm 4.6 cm or 46 mm | 1 | Allow 1mm error on each. |
| b | 5.7 cm or 57 mm | 1 | Allow correct calculation based on incorrect answers to 6 a. |
| 7. |  |  |  |
|  | 0.024, 0.03, 0.036 | 1 | Allow 0.030. |


| question | answer | marks | notes |
| :---: | :---: | :---: | :---: |
| 8. |  |  |  |
|  | Any combination of coins to make 26p | 2 | 2 marks for correct answer 1 mark for correctly calculating the change as 26 p but incorrect coins. 1 mark for 1 error in calculation but gives answer using the least coins for that amount. |
| 9. |  |  |  |
|  | 6012 <br> 3274 <br> 2738 | 2 | 1 mark per digit |
| 10. |  |  |  |
|  | 17:05 | 1 |  |
| 11. |  |  |  |
|  | $\begin{aligned} & p=q+20 \text { or } \\ & q=p-20 \end{aligned}$ | 2 | 1 mark for an incorrect expression that uses p, q, 20, = and either + or -. e.g. q = $p+20$ |
| 12. |  |  |  |
|  | 1, 2, 3, 4, 6, 8, 12, 24 | 1 |  |
| 13. |  |  |  |
|  | Allow $32^{\circ}-36^{\circ}$ <br> (See end of answers for an accurate answer of the angle) | 2 |  |
| 14. |  |  |  |
|  | 3 balls | 2 | $(40 \mathrm{~cm} \times 70=2800 \mathrm{~cm}=28 \mathrm{~m})$ <br> 3 balls $=30 \mathrm{~m}$ <br> 1 mark for incorrect answer due to one error of calculation. |
| 15. |  |  |  |
|  | 0.85 and 0.15 | 2 | 2 marks for both numbers correct. 1 mark for correct method but 1 calculation mistake. |


| question | answer | marks | notes |
| :---: | :---: | :---: | :---: |
| 16. |  |  |  |
|  |  | 2 | 2 marks for 3 correct. 1 mark for 2 correct and none incorrect. |
| 17. |  |  |  |
| a | 9.55 | 1 |  |
| b | 2 numbers that add up to 5.89 | 1 |  |
| 18. |  |  |  |
|  |  | 2 | 2 marks for correct answer. 1 mark if triangle's corners are at $B$ and one other correctly placed. |
| 19. |  |  |  |
|  | $\begin{aligned} & 348000 \\ & 350000 \\ & 300000 \end{aligned}$ | 2 | 2 marks for all correct. 1 mark for 2 correct. |
| 20. |  |  |  |
|  | 2,3 and 15 or 1,9 and 10 | 2 | 2 marks for a correct answer. <br> 1 mark for a set of numbers that correctly meets 1 criteria. |


| question | answer | marks | notes |
| :--- | :---: | :---: | :--- |
| 21. | 2 bags | 2 | 2 marks for correct answer. <br> 1 mark for incorrect answer where it is <br> calculated that $81 / 3$ times the recipe is <br> required. |
|  |  | Total 35 |  |

