Name: Date:

Total for this page

1 mark

1 mark

2 marks

1 mark

## St Matthias **Maths Reasoning**: Pack 4

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

smallest largest

1. Draw all the lines of symmetry on these quadrilaterals.
2. Draw lines to match the following calculations to the correct answers.

|  |
| --- |
| 56 × 0 |
| 56 |
| 56 ÷ 1 |
| 0 |
| 56 × 1 |

1. Write the decimal equivalents to match the following fractions.

 1

=

4

 1

=

2

 3

=

4

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

900

800

700

Distance from school (m)

600

500

400

300

200

100

10:00

10:10 10:20 10:30 10:40 10:50 11:00

Time

Total for this page

1 mark

1 mark

1 mark

1 mark

* 1. How far were the children from their school at 10:20?
	2. For how long are the children at least 500m away from school?

6.

1. Accurately measure these 2 lines.
2. Write the difference in size between the 2 lines.

Total for this page

2 marks

2 marks

1 mark

1. Continue the following sequence:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 0.006, | 0.012, | 0.018, |  | , |  | , |

1. A shop sells T-shirts and shorts for the following prices:

£4.99

£3.25

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?

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

1. Complete this subtraction calculation:

# 6 0 1 2

\_ 2 4

2 7 3 8

Total for this page

1 mark

1 mark

2 marks

1 mark

1. James has to be home by 4:30pm. He is 35 minutes late. Write the time he arrives home in 24-hour time.
2. The number p is 20 more than the number q.

Using algebra, write the relationship between p and q.

1. Write all the factors of 24:
2. Use the following line to draw an angle of 34° at point A. Use a ruler and a protractor or angle measurer.

A B

Total for this page

2 marks

2 marks

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

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

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

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

Total for this page

1 mark

1 mark

2 marks

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

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

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

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

a)

1.56

?

3.07

4.92

b)

0.13

6.02

?

?

Total for this page

2 marks

2 marks

1. 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.

A

B

1. Round the number 347 500 to the nearest 1000, 10 000 and 100 000.

To the nearest 1000 To the nearest 10 000

To the nearest 100 000

Total for this page

2 marks

2 marks

1. 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.

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

250g raspberries 225g caster sugar 2 large eggs

4 large egg yolks 600ml double cream

A mother has 5 litres of cream to make ice cream for a party. Sugar comes in 1kg bags. How many bags of sugar will be needed?

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