



ST JOHN'S

SUMMER MATHS

CHALLENGES

YEAR 5

Week 1: Arithmetic

1

$1016 - 200 =$

1 mark

2

423×2

1 mark

3

$84 \div 6 =$

1 mark

Week 1: Arithmetic

4

$6,237 + 6,959 =$

1 mark

5

$43.2 - 7.85 =$

1 mark

6

$$\begin{array}{r} \times \quad 36 \\ \hline \quad 25 \end{array}$$

Show
your
method

2 marks

Week 2: Reasoning

Section 1

Order these numbers from smallest to largest:

576 094, 567 094, 576 904, 567 904

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



Section 2

Round these numbers to the nearest 100 000:

367 562 →

| |
|--|
| |
| |

453 378 →

Section 4

Convert these measurements in litres to millilitres:

12.43l =

| |
|--|
| |
| |

6.8l =

Section 3

Use these signs $<$ or $>$ to show which number is greater than or less than.

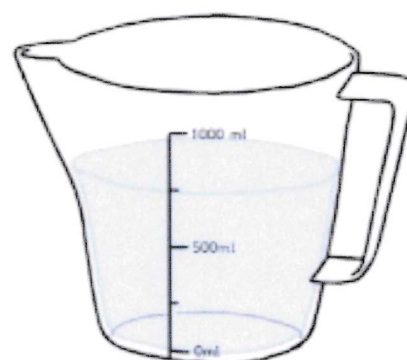
48 701

| |
|--|
| |
| |

48 710

81 010

80 999



Week 2: Reasoning

Section 5

Draw lines to show which fractions, decimals and percentages match.

$$\frac{7}{10} \quad 40\% \quad 0.01$$

$$\frac{2}{5} \quad 1\% \quad 0.7$$

$$\frac{1}{100} \quad 70\% \quad 0.4$$

Section 7

A shop assistant sold £845 worth of perfume. This was £258 more than yesterday. How much did she sell yesterday?

Section 6

Complete these calculations:

$$6396 \div 3 = \boxed{}$$

$$1333 \times 2 = \boxed{}$$

Section 8

Write these Roman numerals as digits:

| | |
|----------|----------------------|
| CCLXVI | <input type="text"/> |
| CCCLXXIV | <input type="text"/> |



Week 3: Arithmetic

1

$7.4 + 0.3 =$

1 mark

2

73×3

1 mark

3

$\boxed{} = 375 - 9$

1 mark

Week 3: Arithmetic

4

$$4,048 \div 11 =$$

1 mark

5

$$21 \times 59 =$$

1 mark

6

$$8.7 - 5.92 =$$

1 mark

Week 4: Reasoning

Section 1

In the number 576 213, which digit represents the number of ten thousands?

In the number 923 648, what place value does the digit '3' represent?

Section 2

Calculate the following in your head.

$56 + 67 =$

$48 + 36 =$

$72 - 26 =$

$91 - 67 =$

Section 3

Calculate:

$4.3 \times 100 =$

$5.61 \times 100 =$

$912 \div 100 =$

$6002 \div 100 =$

Section 4

Use the $<$ or $>$ signs to compare these fractions:

| | | |
|-----------------|--|----------------|
| $\frac{2}{3}$ | | $\frac{4}{6}$ |
| $\frac{1}{4}$ | | $\frac{3}{16}$ |
| $\frac{17}{20}$ | | $\frac{4}{5}$ |

Week 4: Reasoning

Section 5

In order from smallest to largest, write the following numbers in digits:

four point seven two

four point seven

forty point six nine

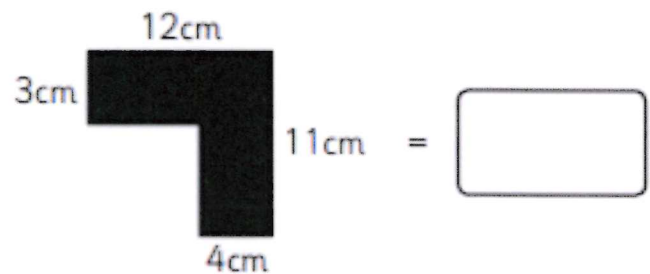
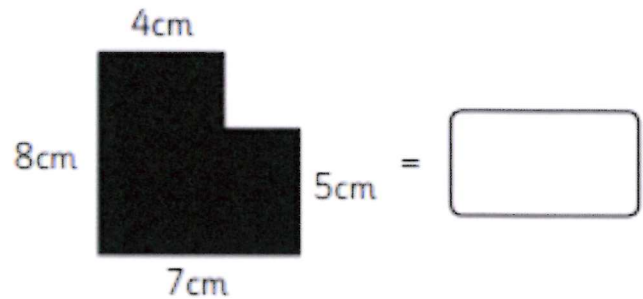
| | | |
|--|--|--|
| | | |
|--|--|--|

smallest

largest

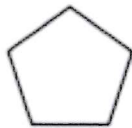
Section 6

Calculate the perimeter of these composite rectilinear shapes.



Section 7

Explain why this shape is regular.



.....
.....

Explain why this shape is irregular.



.....
.....

Section 8

Here is a table showing the number of boys and girls in each year group.

| | Y3 | Y4 | Y5 | Y6 | Total |
|-------|----|----|----|----|-------|
| Boys | | | 45 | | 179 |
| Girls | 47 | 37 | | 39 | |
| Total | | 89 | 89 | 87 | |

Complete the table.

Week 5: Arithmetic

1

$1086 + 294 =$

1 mark

2

$63 \div 9 =$

1 mark

3

$4.9 + 9.003 =$

1 mark

Week 5: Arithmetic

4

$$283,998 - 55,704 =$$

1 mark

5

$$1.205 \times 100 =$$

1 mark

6

$$50 + 7 \times 5 =$$

1 mark

Week 6: Reasoning

Section 1

Complete these linear sequences:

| | | | | |
|------|------|--|--|--|
| 4562 | 5562 | | | |
|------|------|--|--|--|

| | | | | |
|--------|--------|--|--|--|
| 41 786 | 40 786 | | | |
|--------|--------|--|--|--|

| | | | | |
|--------|--------|--|--|--|
| 77 309 | 87 309 | | | |
|--------|--------|--|--|--|

| | | | | |
|---------|---------|--|--|--|
| 622 792 | 612 792 | | | |
|---------|---------|--|--|--|

Section 2

Put the numbers from 1 to 20 on this Carroll Diagram:

| | Prime Number | Not a Prime Number |
|-------------|--------------|--------------------|
| Even number | | |
| Odd number | | |

Section 3

Calculate:

$40 \times 6 =$

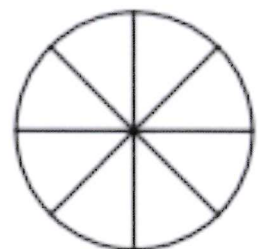
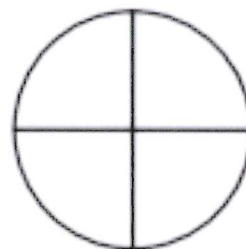
$7 \times 50 =$

$80 \times 30 =$

$1200 \times 11 =$

Section 4

Shade the following circles so the same fraction is shaded in both and write the fraction that they represent:



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.....

Week 6: Reasoning

Section 5

Round the following numbers to the nearest whole number and nearest tenth:

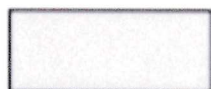
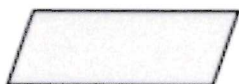
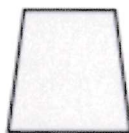
| Number | Nearest whole | Nearest tenth |
|--------|---------------|---------------|
| 16.45 | | |
| 1.06 | | |
| 2.98 | | |
| 67.59 | | |

Section 6

A bus journey starts at 16:13 and finishes at 18:05. How long is the journey?

Section 7

For each of the following shapes, explain why they are or are not a rectangle.



.....

.....

.....

Section 8

Translate this shape from point A to point B:

