Year 6 Summer 1 Maths homework

Place Value

What's my number?

What number am I?
I have four hundreds, nine tens and one unit.

What number am I?
I have seven ones, and five tenths.

What number am I?
I have seven hundreds, zero tens and zero ones.

What number am I?
I have seven tens, four ones and five hundredths.

Now create your own 'What's My Number?' to practise with a friend.

Mental and Written Calculations

Which method is best? Decide and then work out the calculations below…

Counting on mentally, counting back mentally, rounding and adjusting, using jottings or a formal written calculation?

$$374 – 39 =$$
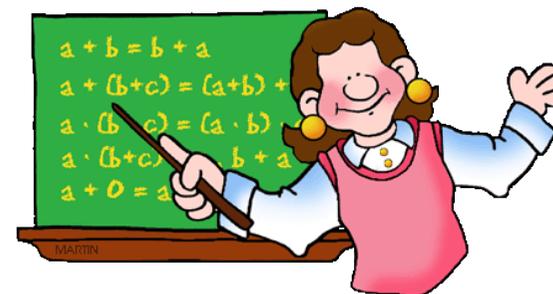$$803 – 7 =$$
$$900 – 456 =$$
$$2.51 – 1.36 =$$
$$10.30 – 0.7 =$$
$$26.1 – 1.8 =$$

- A plank is 3.25 metres long if 1.08 metres is saw off. How long is the plank now?

- The 100 metres was won in 10.83 seconds. Justin's time was 11.4 seconds. How much slower was Justin's time?

- An X-box game was 34.60, however Meg was 39p short. How much did she have?

Leave   Subtract
Minus   —   Less
Take away   Difference

Algebra and Sequences

$a + b = b + a$
$a + (b+c) = (a+b) + $
$a \cdot (b \cdot c) = (a \cdot b)$
$a \cdot (b+c)$ $b + a$
$a + 0 = a$

A sequence of numbers starts at 11 and follows the rule

'double the last number and then subtract 3'

11   19   35   67   131 …

The sequence continues.

The number 4099 is in the sequence.

Calculate the number which comes immediately **before 4099** in the sequence.

Show your **method**. You may get a mark.

Calculation Fractions

Work out the following:

1. 1/4 × 1/5   **2**. 1/12 × 1/3   **3**. 2/6 × 1/8   **4**. 4/7 × 4/5

Reasoning

Lily is multiplying the following calculation:

$$\frac{1}{5} \times \frac{1}{6}$$

The answer she gets is $\frac{2}{30}$

Explain what she has done.

Morgan sees that when she multiplies 2 fractions together she ends up with a smaller fraction.

She thinks she will eventually have a decimal fraction.

Problem Solving

If $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$

is $\frac{2}{8} \times \frac{2}{4} = \frac{2}{16}$?

Explain your answer.

Michael used $\frac{1}{3}$ of a can of paint to cover 3·5 square metres of wall.

How much wall will one whole can of paint cover?

$\frac{8}{8}$ I WANT MORE! $\frac{5}{8}$

Coordinates

Cartoon Character (Use the squared paper below or ask your teacher for some)

Draw an X axis 0-26 and y axis 0-12

Draw each set of co-ordinates separately - do not join (A) co-ordinates to (B) co-ordinates.

A) (24,6) (25,6) (25,7) (24,7) (24,5) (25,5) (25,6)

B) (25,6) (25,1) (23,1) (23,2) (24,2) (24,1)

C) (24,2) (25,2)

D) (24,3) (25,3)

E) (24,4) (25,4)

F) (24,2) (24,6) (22,7) (22,8) (21,8) (21,10) (20,10) (19,9) (19,10) (18,10) (18,9) (17,10) (16,9) (16,8) (17,7) (16,6) (16,5) (17,4) (18,4) (19,5) (19,6) (18,7) (17,7)

G) (23,2) (20,2) (20,1) (19,1) (19,2) (17,2) (16,3) (16,4) (15,4) (15,6) (16,7) (15,8) (17,10) (15,10) (14,9) (13,10) (12,10) (11,9) (10,10) (9,10) (8,9) (7,10) (6,10) (5,9) (4,10) (2,10) (2,8) (3,7) (2,6) (2,5) (3,4) (2,3) (2,2) (3,1) (4,1) (5,2) (6,1) (7,1) (8,2) (9,1) (10,1) (11,2) (12,1) (13,1) (14,2) (15,1) (16,1) (17,2)

H) (17,6)

I) (17,9)