(International Multiple Choice Primary School Olympiads – Est. 1998) Conquesta, P O Box 99, Kloof, 3640, South Africa Tel: (031) 764-1972 * Fax: (086) 637-7808 or (031) 764-0074

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Mathematics 1 – Grade 6

Welcome to your Conquesta Olympiad. When you have decided which of the answers is correct, scratch out the letter in the matching square on your answer sheet using ONLY a black or blue ballpoint or black khoki pen. (Do not use pencils, crayons, pencil crayons, highlighters, tippex or glue.) If the answer to question 4 is c, then scratch out the letter c in the square containing c next to the number 4 (see example 1 below). If you've made a mistake and b should have been the answer, neatly cross out the mistake and then scratch out b (see example 2 below).

Example 1:-

Example 2:-

а

Useful tip:- When you have number sentences using different operations, apply the rule of BODMAS, which is the order of operations:- Firstly, calculate whatever is in Brackets, then Other (of, square roots, power of, etc), then \overline{D} ivision and <u>M</u>ultiplication (from left to right as they rank equally), and lastly, Addition and Subtraction (also from left to right).

How should the following expanded notation be written in figures?

$$(8 \times 10^3) + (5 \times 10^5) + (10 \times 10^2) + (3 \times 10^1)$$

- (a) 580 103
- (b) 508 130
- (c) 590 300
- (d) 509 030

Choose the correct sign(s) to go into the space.

$$(7 \times 5) - 4 \dots 7 + (5 - 4)$$

- (a) >, ≠
- (b) <, \neq , (c) =
- (d) None

I am a 3-digit number. My last digit is double my middle digit and 4 times my 1st digit. My 1st digit is a prime number.

3. What number am I?

- (a) 312
- (b) 248
- (c) 520
- (d) 224

4. Which two signs are missing from the following equation?

- (a) x, +
- (b) \div , x (c) +, x

 $(d) \div, +$

26 + 1/2 of 8 x 4 = (Apply BODMAS Rule.)

- (a) 848
- (b) 120
- (c) 168
- (d) 42

The sum of 328 and 635 is subtracted from the product of 10 and 100.

Which of the following number sentences is best suited to the above statement?

(c) $(100 \times 10) - (635 + 328)$

(The product is the answer to a multiplication)

(d) (100 ÷ 10) - (328 ÷635)

Which of the following is the correct answer for the number sentence in question 6?

- (a) 953
- (b) 370
- (c) 37
- (d) 973

What will be the 88th letter in this sequence?

- (a) a
- (b) c
- (c) u
- (d) t

Which two numbers are missing in this pattern of numbers?

- (a) 4,1
- (b) 6,2
- (c) 9,8
- (d) 5,0

Did you know?

- Always read the x-axis first on a co-ordinate grid.
- A Rhombus is a flat shape (looks like a diamond) with 4 sides of equal length (shown by a little line through them), the opposite sides are parallel, and opposite angles are equal.
- A percent is a way of expressing a number as a fraction of 100. Say you want to know what percentage 37 is out of 50? Place 37 over 50 and multiply it by 100 over 1.
- 8⁴ means 8 to the power of 4, or 8 multiplied by itself 4 times. Eg., $8^4 = 8 \times 8 \times 8 \times 8 = 4096$. And if a fraction is to the power of, say,2, then multiply the fraction by itself.
- Comparing or adding fractions make the denominators the same. To make denominators the same, the easiest way is to multiply both the top (numerator) and the bottom (denominator) of each fraction by the denominator of the other. This always works, but you will often
- need to simplify the fractions afterwards. To write a fraction in its simplest form (or simplify it), divide the numerator and the denominator by the same number until you can't divide them by the same number any more. You will now have the
- fraction in its simplest form. 10. Solve the following equation by giving the value

of p.

- (a) 15
- (b) 35
- (c) 53
- (d) 21

11. Solve the following equation for s. (What is s?)

$$\frac{S}{16} = 16$$

- (a) 16
- (b) 1
- (c) 256
- (d) 265

12. Solve the following equation for y, where n = 4

$$y = n \times 3 + 56 + 2 \times n$$

- (a) 76
- (b) 280
- (c) 61
- (d) 80

13. What is the value of x?

$$\frac{x}{9}$$
 + 6 = 8

- (a) 8
- (b) 18
- (c) 66
- (d) 126