

## **DIAGNOSTIC ASSESSMENT 1**

### **Word Power**

*Genesis 1:1 - "In the beginning God created the heaven and the earth..."*

*Genesis 1:31- "And God every thing that he had made, and, behold it was very good.*

*You Say: "There is no room for low self-esteem because I am wonderfully made by God."*

**INSTRUCTIONS:** This is **NOT** a test for marks. It simply assesses how much you know concerning these Math topics based on the Specific Learning Outcomes (SLO) stated below. If you do not know the answer to a particular question, refer to our YouTube solutions for assistance. Links to solutions at the end of this test. We are here to assist you, should you require further help.

### **Question 1**

**[SLO: Identify the place value and total value of a digit in a given number.]**

Adam is estimated to have named 14,702,853 individual living creatures.

(a) State the place value of the digit 4.

(b) Write the total value of the digit 7.

### **Question 2**

**[SLO: State the place value of digits in large numbers.]**

In a study of the stars, a distance is recorded as 309,480,000 km. State the place value of the digit 9.

### **Question 3**

**[SLO: Calculate the difference between the values of digits in different positions.]**

Calculate the difference between the total value of digit 5 and the total value of digit 2 in the number 503,210.

**Question 4**

[SLO: Write numbers given in words using mathematical symbols.]

Write the following number in symbols: Five million, twenty-two thousand and six.

**Question 5**

[SLO: Express large numbers in Standard Form (Scientific Notation).]

Express the number 45,000,000 in Standard Form ( $A \times 10^n$ ).

**Question 6**

[SLO: Apply the order of operations (BODMAS) to evaluate mixed expressions.]

Evaluate using BODMAS:  $24 \div 3 + 4 \times 5 - 2$

**Question 7**

[SLO: Solve multi-step arithmetic problems involving brackets and division.]

Work out the value of:  $(120 - 40 \div 5) / (8 \times 2)$

## **YouTube Solutions By Questions**

Question 1. <https://youtu.be/ddFeXLdZoYc>

Question 2. <https://youtu.be/oWeWNm8PLdY>

Question 3. <https://youtu.be/r4nvgPIL48k>

Question 4. <https://youtu.be/qrwo6aZwG90>

Question 5. <https://youtu.be/XNj44eD5odM>

-  
Question 6. <https://youtu.be/kyBSNqnFXLQ>

Question 7. <https://youtu.be/NvF6xGG0faM>

**Courtesy The Math Ministry and Alton Art at <https://www.altonart.org>**