

Name: _____

Selected Response: Questions 1 - 5

[8 marks]

1. Which power is the greatest?
A. 2^7 B. 7^2 C. 3^5 D. 5^3

2. Identify the power that represents $(4)(4)(4)(4)(4)$.
A. 4^5 B. 5^4 C. $(4)(5)$ D. 256

3. Identify the selection that is equivalent to 6^3 ?
A. $(3)(3)(3)(3)(3)(3)$ B. 216 C. $(6)(3)$ D. $6 + 6 + 6$

4. Evaluate -2^6 .
A. 12 B. -64 C. 64 D. -12

5. In the expression $(-3)^7$, what is $(-3)^7$ called?
A. Exponent B. Base C. Power D. Product

6. Evaluate $3^2 - (4)^1(24)^0$. [2 marks]

7. Write 10^{11} in standard form. [2 marks]

8. Solve $(2^2 \cdot 3^2 - 4^2)^2$. [2 marks]

SHOW WORKINGS FOR FULL MARKS

Evaluate these expressions.

9. $(5)(3) - 7[(-3) - 2]^3$ [3 marks]

10. $(6)(3)^2 - (2^0 + 3^3) \div 7$ [3 marks]

11. $[(5 - 3)^2 \times 3]^2 - 8 \div 2$ [3 marks]

12. A population of giraffes in Africa is near extinction and only 8 giraffes survive. The wildlife fund has developed a great program and they expect the population of giraffes to triple each year.

How many giraffes will be present in 4 years time? Complete the table. [2 marks]

Year	0	1	2	3	4
Number of giraffes	8				

[1 marks]

13. A student performed this calculation on a test and did not receive full marks. Identify, and explain the mistake and rework the question so that it is correct. [3 marks]

$$-(24 - 3 \times 4^6)^0 \div (-4)^2$$

$$(-1) \div (-16)$$

$$\frac{1}{16}$$

14. Solve the equation: $\frac{4(5^2) \div [2(4 - (-1))^2]}{-3 + 2}$ [3 marks]