(student name in English) (matthayom/group) (student number)

# EXPONENT MULTPLICATION HOMEWORK ANSWERS

1. Order from smallest to largest:
   If $a = 3^4$, $b = 2^{10}$, $c = 5^0$, $d = 4^2$ — c<d<a<b — 1<16<81<1,024

2. Order from largest to smallest:
   If $a = 2^{0+2}$, $b = 3^{6-0}$, $c = 6^{1-1x1}$, $d = 3^{-2x2}$ — b>d>a>c — 729>81>4>1

3. Order from smallest to largest:
   If $a = 4^{4+1}$, $b = 5^{10-2x5}$, $c = 3^{3-2}$, $d = 5^{-3+6}$ — b<c<d<a — 1<3<125<1,024

4. Order from largest to smallest:
   If $a = 2^0$, $b = 5^{1x5}$, $c = 3^4$, $d = 4^{(4-3)x3}$ — b>c>d>a — 3,125>81>64>1

5. Simplify: $5^{3+0} \cdot 5^{2-1}$ — $5^4$

6. Simplify: $(4^2)^3 \cdot 2^5$ — $(2^2)^6 \cdot 2^5 = 2^{12} \cdot 2^5 = 2^{17}$

7. Simplify: $(5^3)^0 \cdot 3^2$ — $1 \cdot 3^2 = 3^2 = 9$

8. $(-2)^2 \cdot 3^3 + 2^4$ is the same as: — $(2)^2 \cdot 3^3 + 2^4$

9. $(-4)^3 \cdot 2^3 + 3^0$ is the same as: — $4^3 \cdot 2^3 + 1$

10. $(-4)^0 \cdot 4 + 2^2$ is the same as: — $4 + 2^2$

11. $(2^0)^2 + (2 \cdot 3^2)^2$ is the same as: — $1 + 6^4$

12. Solve the equation: $5^{x+1} = 4^{x+1}$ — x = -1

13. $4^5 \cdot 4^2 = 16^7$ [ ] True [ ] False

14. $4^1 \cdot 4^0 = 4^1$ [ ] True [ ] False

15. $-(-x)^3 = x^3$ [ ] True [ ] False

16. $(ab)^m = a^m b^m$ [ ] True [ ] False

17. $(r^x)^y \cdot r^{xy} = r^{2xy}$ [ ] True [ ] False