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

EXPONENT DIVISION & POWER TO A POWER HOMEWORK ANSWERS

1. This $\frac{4\cdot 2^1}{5\cdot 2^3}$ is the same as: $\frac{8}{40}$ $\frac{1}{5}$

2. Simplify: $\frac{-3^2\cdot 2^2}{4^1}$ $\frac{-9\cdot 4}{4} = -9$

3. This $\frac{2^2\cdot 2^3}{-3^2\cdot 2^0}$ is the same as: $\frac{2^5}{-3^2}$

4. Simplify: $\frac{4^3\cdot 2^3}{6}$ $\frac{\left(2^2\right)^3\cdot 2^3}{2\cdot 3} = \frac{2^6\cdot 2^3}{2\cdot 3} = \frac{2^9}{2\cdot 3} = \frac{2^8}{3}$

5. This $\frac{\left(5+2^2\right)\cdot 2^3}{-2^2}$ is the same as: $\frac{9\cdot 8}{-4} = 9\cdot(-2) = -18$

6. Simplify: $\frac{6^2\cdot -2^1}{4\cdot 3^2}$ $\frac{3^2\cdot 2^1\cdot -2}{2^2\cdot 3^2} = -2$

6. $\frac{3^2}{3} = \frac{1}{3^3}$ ○ True ● False

7. $\frac{(2^5)^2}{(2^4)^3} = 1$ ○ True ● False

8. $(3^0)^2\cdot(3^1)^2 = \frac{(2^2)^2}{2^1\cdot 2^3}$ ○ True ● False

9. $(3^2)^3\cdot(3^1)^2 = \frac{(2^2)^3}{2^1\cdot 2^3}$ ○ True ● False

10. Write $\dfrac{4x^3}{2x^4y^2}$ not as a fraction. $\dfrac{2}{xy^2} = 2x^{-1}y^{-2}$

11. Simplify: $(3x)^2 \cdot (3x^2)^2$ $(3x)(3x)(3x^2)(3x^2) = 3^4 \cdot x^6$

12. $\dfrac{-6r^2t \cdot (8+2r^1)^0}{r^4t} = ?$ $\dfrac{-6}{r^2}$

13. $\left(\dfrac{1}{36^1}\right)^2$ is the same as: $\dfrac{1^2}{36^2} = \dfrac{1}{1296}$

14. $\left(\dfrac{3a}{4b^2}\right)^2$ is the same as: $\dfrac{9a^2}{16b^4}$

15. Solve the equation $\left(\dfrac{1}{8}\right)^x = 2^{x8}$ $x = 0$

16. If $3\left(2^{3x+1}\right) = 48$, find 3x+2. 5

17. If $3^x + 3^{x+1} - 3^{x+2} + 405 = 0$, find x. $x = 4$

18. If $(-4)^{2x} = -\dfrac{1}{64}$, find 4x+1. -1