Name: ----------

Date: ---------- Score: ----------

MATH MONKS

Operation with Exponents

Simplify each expression

1 $7^2 \cdot 7^3$

2 $8^2 \cdot 8^3$

3 $(7x^2)(2x^3)$

Find the product of the expressions

4 $(5p^3)(-m^8p^2)$

5 $(10g^3h^8v^6)(11gh^8)$

6 $(3x^ay^bz^c)(-y^fz^g)$

7 $(xy)^2(x^2y^2)^2$

Find the product. Expand if needed

8 $(8a^2b)^3$

9 $(-3^2x^6)^5$

10 $\left(\frac{3x^2}{2y^2}\right)^5$

Simplify to find the quotients

11 $\frac{12g^8h^4}{g^3h^5}$

12 $\frac{2^3x^3y^4}{2xy^2z}$

13 $\frac{3x^{14}y^{11}}{18x^2}$

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MATH MONKS

Operation with Exponents

Answers

1 $7^2 \cdot 7^3$

16807

2 $8^2 \cdot 8^3$

32768

3 $(7x^2)(2x^3)$

$14x^5$

4 $(5p^3)(-m^8p^2)$

$-5p^5m^8$

5 $(10g^3h^8v^6)(11gh^8)$

$110g^4h^{16}v^6$

6 $(3x^ay^bz^c)(-y^fz^g)$

$3x^ay^{b+f}z^{c+g}$

7 $(xy)^2(x^2y^2)^2$

x^6y^6

8 $(8a^2b)^3$

$512a^6b^3$

9 $(-3^2x^6)^5$

$-59049x^{30}$

10 $\left(\frac{3x^2}{2y^2}\right)^5$

$\frac{243x^{10}}{32y^{10}}$

11 $\frac{12g^8h^4}{g^3h^5}$

$\frac{12g^5}{h}$

12 $\frac{2^3x^3y^4}{2xy^2z}$

$\frac{4x^2y^2}{z}$

13 $\frac{3x^{14}y^{11}}{18x^2}$

$\frac{x^{12}y^{11}}{6}$