

- 1. If the expression $(2y^a)^4$ is equivalent to $16y^8$, what is the value of a?
 - 1. 12
- 2. 2
- 3. 32 4. 4

2. The expression $\frac{12w^9y^3}{-3w^3y^3}$ is equivalent to

$$(1. -4w^6)$$

3. Express in simplest form: $\frac{45a^4b^3 - 90a^3b}{}$

$$\frac{45a^4b^3 - 90a^3b}{15a^2b}$$

1.
$$3a^2b^2 - 6ab$$

2.
$$3a^2b^2-1$$

3.
$$3a^2b^3 - 6a$$

$$4.3a^2b^2 - 6a$$

1.
$$3a^{2}b^{2}-6ab$$

2. $3a^{2}b^{2}-1$
3. $3a^{2}b^{3}-6a$
4. $3a^{2}b^{2}-6a$
 $450^{4}b^{3}$ $900^{3}b$
 $150^{2}b$
 $150^{2}b$
 $150^{2}b$
 $150^{2}b$

4. The product of $3x^5$ and $2x^4$ is 1. $5x^9$ 2. $5x^{20}$ 6 $X^{5+4} = 6X^9$

1.
$$5x^9$$

$$326x^{9}$$

4.
$$6x^{20}$$

5. Which expression is not equal to 1?

1.
$$\frac{6^5}{6^3 \cdot 6^2} = \frac{6^5}{6^5} = 1$$

2.
$$\frac{3!}{6} = \frac{3 \cdot 2 \cdot 1}{6} = \frac{1}{6}$$

$$3.6^{\circ} = 1$$

$$\sqrt{4.0} \frac{6^6}{6^2 \cdot 6^3} \ge \frac{6^6}{6^5} = 6$$

6. Which expression is equivalent to $(5^{-2}a^3b^{-4})^{-1}$?

1.
$$\frac{10b^4}{3}$$

$$(2.)\frac{25b^4}{a^3}$$

3.
$$\frac{a^3}{25b^4}$$

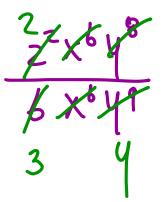
4.
$$\frac{a^2}{125b^5}$$

$$= 2564$$

- 7. Which expression is equivalent to $\frac{x^{-1}y^4}{3x^{-5}y^{-1}}$?
 - 1. $\frac{x^4y^5}{3}$
 - 2. $\frac{x^5y^4}{3}$ 3. $3x^4y^5$ 4. $\frac{y^4}{3x^5}$

8. Find the quotient of the following expression:

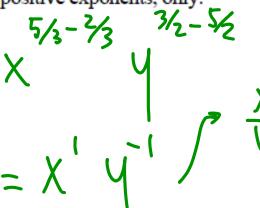
$$\frac{\left(2x^3y^4\right)^2}{6x^6y^9}$$



Simplify the expression $\frac{x^{\frac{5}{3}}y^{\frac{3}{2}}}{x^{\frac{3}{2}}v^{\frac{5}{2}}}$ and leave the

answer in terms of positive exponents, only.





- 10. Simplify the expression $(3x^{-2}y^3)^{-2}(2x^{-6}y^2)$ so that it uses positive exponents, only.

$$\frac{2}{9}x^{-2}y^{-4} = \frac{2}{9x^2y^4}$$