

Algebra Topics: Indices

Example.

$$a^4 \times a^5 = a^9; \quad 3a^4b \times 5a^2b^7 = 15a^6b^8; \quad \frac{12x^5y^6}{6x^4y^8} = 2xy^{-2} = \frac{2x}{y^2}$$

1. Simplify $\frac{24x^6}{6x^3}$ [2]
2. Simplify $(5x^3)^2$ [2]
3. Simplify $(4x^3y^2) \times (2x^4y^5)$ [2]
4. Simplify $2a^5b^2 \times 3a^3b$ [2]
5. Simplify $(3x^5y^2)^3$ [2]
6. Simplify $\frac{24 \times a^{\frac{5}{2}} \times a^{\frac{1}{2}}}{8 \times a^4}$ [2]
7. Simplify $(4y^2x^3)^3$ [2]
8. Simplify $\frac{a^{\frac{13}{3}} \times a^{\frac{4}{3}}}{a^{-3}}$ [2]
9. Simplify $w^5 \times w^4$ [1]
10. Simplify $\frac{12a^7b^4}{4ab^3}$ [2]
11. Simplify $\frac{24x^{12}y^6}{8x^4y^8}$ [2]
12. Simplify $(2x^3y^2)^4$ [2]
13. Simplify $3y^{\frac{1}{2}} \times 4y^{\frac{3}{2}}$ [2]
14. Simplify $\frac{6x^{\frac{1}{2}}}{3x^{\frac{1}{2}}}$ [1]