

Multiplying & Dividing Monomials

Simplify using the Laws of Exponents

① $5^4 \cdot 5^3$

② $m^6 \cdot m^4$

③ $5x^3 \cdot 6x$

④ $(-3w^4)(-6w^5)$

⑤ $\frac{3^{12}}{3^6}$

⑥ $\frac{m^{15}}{m^5}$

⑦ $\frac{16x^8}{8x^3}$

⑧ $\frac{(-3)^4 m^6 p^9}{(-3) m^6 p^4}$

⑨ $3x^2 \cdot \frac{x^6}{x}$

⑩ $(-6w^4) \cdot \frac{8w^6}{6w^4}$

Find the missing exponent (*)

⑪ $6x^* \cdot 4x^2 = 24x^5$

⑫ $\frac{20x^*}{10x^3} = 2x^7$

⑬ $(-4m^6)(2m^*) = -8m^{10}$

⑭ $\frac{-16x^4 m^9}{8x m^*} = -2x^3 m^3$

Answers:

① 5^7

② m^{10}

③ $30x^4$

④ $18w^9$

⑤ 3^6

⑥ m^{10}

⑦ $2x^5$

⑧ $(-3)^3 p^5$

⑨ $3x^7$

⑩ $-8w^6$

⑪ $* = 3$

⑫ $* = 10$

⑬ $* = 4$

⑭ $* = 6$