

1. calcula:

(a) $\frac{3^{-2} \cdot 3^5 \cdot 2^3}{(3 \cdot 2)^4}$

Sol: 1/6

(b) $3^{-5} \cdot (\frac{1}{3})^{-2} \cdot 81$

Sol: 3

(c) $(\frac{5}{4})^5 \cdot \frac{2^6}{5^2}$

Sol: 125/16

(d) $\frac{2^{-2} \cdot (2^2)^3}{2^{-3}}$

Sol: 128

(e) $\frac{5^{-3} \cdot 5^{-1} \cdot 5^2}{5^0 + 5^6}$

Sol: 1/390650

(f) $(\frac{2}{3})^{-2} \cdot (\frac{3}{2})^4$

Sol: 729/64

(g) $\frac{\sqrt{2} \cdot (\sqrt{2})^3 \cdot (\sqrt{5})^3}{(5\sqrt{2})^2}$

Sol: $2 * \sqrt{5}/5$

(h) $\frac{9^{\frac{1}{2}} \cdot 3^{-1} \cdot 2^{\frac{3}{2}}}{\sqrt{2}}$

Sol: 2

(i) $\frac{3^{-2} \cdot 3^5 \cdot 2^3}{(3 \cdot 2)^4}$

Sol: 1/6

(j) $3^{-5} \cdot (\frac{1}{3})^{-2} \cdot 81$

Sol: 3

(k) $(\frac{5}{4})^5 \cdot \frac{2^6}{5^2}$

Sol: 125/16

(l) $\frac{2^{-2} \cdot (2^2)^3}{2^{-3}}$

Sol: 128

(m) $\frac{5^{-3} \cdot 5^{-1} \cdot 5^2}{5^0 + 5^6}$

Sol: 1/390650

(n) $(\frac{2}{3})^{-2} \cdot (\frac{3}{2})^4$

Sol: 729/64

(ñ) $\frac{\sqrt{2} \cdot (\sqrt{2})^3 \cdot (\sqrt{5})^3}{(5\sqrt{2})^2}$

Sol: $2 * \sqrt{5}/5$

(o) $\frac{9^{\frac{1}{2}} \cdot 3^{-1} \cdot 2^{\frac{3}{2}}}{\sqrt{2}}$

Sol: 2