

$$\begin{aligned} \text{f) } \left(\frac{6a^{-1}}{3b^{-3}}\right)^3 \cdot \left(\frac{2b^{-4}}{a^2}\right)^2 : \left(\frac{2a^{-2}b^2}{ab^2}\right)^3 &= \left(\frac{6b^3}{3a^1}\right)^3 \cdot \left(\frac{2}{a^2b^4}\right)^2 : \left(\frac{2b^2}{a \cdot a^2b^2}\right)^3 = \left(\frac{2b^3}{a}\right)^3 \cdot \left(\frac{2}{a^2b^4}\right)^2 : \left(\frac{2}{a^3}\right)^3 = \\ &= \frac{8b^9}{a^3} \cdot \frac{4}{a^4b^8} \cdot \frac{a^9}{8} = \frac{4a^9b^9}{a^7b^8} = 4a^2b \end{aligned}$$

