

(1) $4^2 = 16$

$4^1 = 4$

$4^0 = 1$

$4^{-1} = \frac{1}{4}$

$4^{-2} = \frac{1}{16}$

(2) a) 125

b) 1

c) $\frac{1}{9}$

d) 0.01

(3) a) $5^2 \cdot 5^{-1} = 5$

b) $4^3 \cdot 2^{-3} = 1.5$

c) $3^{-3} \cdot 12 = \frac{4}{9}$

d) $1^0 \cdot 10^0 = 1$

(4) a) $\frac{3^3}{3^2} = 3$

b) $\frac{9^2}{3^4} = 1$

c) $\frac{4}{2^{-2}} = 16$

d) $\frac{3^{-2}}{3^{-3}} = 3$

(5) a) $\frac{9}{2}$

b) $\frac{1}{2}$

c) $\frac{8}{27}$

d) 1