



1) Simplify each expression:

a)  $\frac{4^{3/4} \cdot 4^{-1/4}}{4^{3/2}}$

b)  $\left(5^{2/3} \cdot 36^{1/6}\right)^3$

2) Simplify first, then evaluate each expression for  $a = -1$  and  $b = 3$ :

a)  $-\frac{9a^5b^2}{b^{-2}}$

b)  $a^{2/5} \left( (5b)^2 - a^{3/5} \right)$

3) Without using a calculator, what is  $\sqrt{0.25}$ ?

- A. 0.05      B. 0.5      C.  $\frac{25}{100}$       D.  $\frac{1}{5}$

4) Without using a calculator, what is  $-27^{2/3}$ ?

- A. 9      B. -9      C. 18      D. -18