

# Homework p. 417: 15-17, 21-31 (odds), 46

**FINDING *N*TH ROOTS** Find the indicated real *n*th root(s) of *a*.

15.  $n = 2, a = 64$

16.  $n = 3, a = -27$

17.  $n = 4, a = 0$

**EVALUATING EXPRESSIONS** Evaluate the expression without using a calculator.

21.  $\sqrt[6]{64}$

22.  $8^{1/3}$

23.  $16^{3/2}$

24.  $\sqrt[3]{-125}$

25.  $27^{2/3}$

26.  $(-243)^{1/5}$

27.  $(\sqrt[3]{8})^{-2}$

28.  $(\sqrt[3]{-64})^4$

29.  $(\sqrt[4]{16})^{-7}$

30.  $25^{3/2}$

31.  $64^{-2/3}$

32.  $\frac{1}{81^{-3/4}}$

46. ★ **MULTIPLE CHOICE** Which expression has the greatest value?

(A)  $27^{3/5}$

(B)  $5^{3/2}$

(C)  $\sqrt[3]{81}$

(D)  $(\sqrt[3]{2})^8$