

___ 12. Determine which of these numbers is the least.

$$\sqrt{14}, \sqrt[3]{30}, \sqrt[4]{100}, \sqrt[3]{75}, \sqrt{17}$$

- a. $\sqrt[4]{100}$ b. $\sqrt[3]{30}$ c. $\sqrt{14}$ d. $\sqrt[3]{75}$

___ 13. Between which two consecutive integers on a number line would you locate $\sqrt[3]{-18}$?

- a. -2 and -3 b. -3 and -4 c. 2 and 3 d. -1 and -2

___ 14. Which of these numbers is an integer, but not a whole number?

$$-9, 0, 1, \sqrt{5}$$

- a. 0 b. -9 c. $\sqrt{5}$ d. 1

___ 15. Which of these numbers is a natural number?

$$9, 0, -1, 1.\bar{8}$$

- a. 9 b. 0 c. $1.\bar{8}$ d. -1

___ 16. Which of these numbers is a whole number, but not a natural number?

$$0, -3, 1, 8.1$$

- a. 8.1 b. 1 c. 0 d. -3

___ 17. To which set(s) of numbers does $-\sqrt{25}$ belong?

I	Natural
II	Integer
III	Rational
IV	Irrational

- a. II and III only b. III only c. I, II and III only d. IV only

___ 23. Order these numbers from greatest to least: $2\sqrt{30}, 3\sqrt{3}, 2\sqrt{7}, 5\sqrt{5}, 2\sqrt{13}$

- a. $2\sqrt{13}, 2\sqrt{7}, 3\sqrt{3}, 5\sqrt{5}, 2\sqrt{30}$ c. $5\sqrt{5}, 2\sqrt{30}, 3\sqrt{3}, 2\sqrt{13}, 2\sqrt{7}$
b. $5\sqrt{5}, 2\sqrt{30}, 2\sqrt{13}, 2\sqrt{7}, 3\sqrt{3}$ d. $3\sqrt{3}, 5\sqrt{5}, 2\sqrt{30}, 2\sqrt{13}, 2\sqrt{7}$

___ 24. Evaluate $64^{\frac{1}{3}}$ without using a calculator.

- a. 8 b. 4 c. -4 d. $21\frac{1}{3}$

___ 25. Evaluate $0.25^{\frac{1}{2}}$ without using a calculator.

- a. 0.05 b. 0.125 c. 0.5 d. 0.29

___ 26. Evaluate $(-27)^{\frac{1}{3}}$ without using a calculator.

- a. -3 b. 3 c. -9 d. does not exist

___ 27. Evaluate $\left(\frac{256}{625}\right)^{\frac{1}{4}}$ without using a calculator.

- a. $\frac{64}{625}$ b. $\frac{4}{25}$ c. $\frac{4}{5}$ d. $\frac{16}{25}$

___ 28. Write $42^{\frac{5}{4}}$ as a radical.

a. $\sqrt[5]{42^4}$ b. $(\sqrt[4]{42})^5$ c. $\sqrt[125]{42}$ d. $(\sqrt[5]{42})^4$

___ 29. Write $\sqrt{\left(\frac{3}{4}\right)^9}$ as a power.

a. $\left(\frac{3}{4}\right)^{-\frac{9}{2}}$ b. $\left(\frac{3}{4}\right)^{\frac{9}{2}}$ c. $\left(\frac{4}{3}\right)^{-\frac{2}{9}}$ d. $\left(\frac{3}{4}\right)^{\frac{2}{9}}$

___ 30. Evaluate $0.16^{\frac{5}{2}}$.

a. 0.4804 b. 0.1012 c. 0.0256 d. 0.010 24

___ 31. Evaluate $(-243)^{0.6}$

a. -27 c. 27
b. does not exist d. 9462.5994...

___ 32. Evaluate $4^{2.5}$

a. 18 c. 1.741 101...
b. 32 d. 40

___ 33. Evaluate $\left(\frac{125}{8}\right)^{\frac{4}{3}}$

a. $\frac{625}{4}$ c. $\frac{625}{16}$
b. 7.858 958... d. $\frac{625}{8}$

___ 34. Evaluate 3^{-2} without using a calculator.

a. $\sqrt{3}$ b. $\frac{1}{6}$ c. $\frac{1}{9}$ d. 9

___ 35. Evaluate $\left(\frac{2}{3}\right)^{-3}$.

a. $-\frac{27}{8}$ b. $-\frac{8}{27}$ c. $\frac{27}{8}$ d. $-\frac{1}{6}$

