

Square Root 1

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Classify the number as rational or irrational.

1) $\sqrt{80}$ 1) _____
A) Rational B) Irrational

2) $\sqrt{109}$ 2) _____
A) Rational B) Irrational

Evaluate the square root, if possible.

3) $\sqrt{-625}$ 3) _____
A) Not a real number B) 312
C) 25 D) 26

4) $\sqrt{\frac{81}{49}}$ 4) _____
A) $\frac{9}{7}$ B) $\frac{\sqrt{9}}{7}$ C) 1 D) $\frac{\sqrt{9}}{\sqrt{7}}$

Find all square roots of the number.

5) 625 5) _____
A) ± 25 B) ± 50 C) ± 27 D) ± 26

6) 64 6) _____
A) ± 10 B) ± 8 C) ± 9 D) ± 16

Simplify. Assume that variables represent positive numbers.

7) $\sqrt{x^4}$ 7) _____
A) $\sqrt{x^2}$ B) not defined C) x^2 D) x

8) $\sqrt{0.0576x^4y^2}$ 8) _____
A) $0.25x^4y$ B) $0.288x^2y^2$ C) $0.24x^2y$ D) $0.24x^4y$

Use a calculator or table to approximate the number. Round to three decimal places.

9) $\sqrt{29}$ 9) _____
A) 58 B) 9.667 C) 5.385 D) 29.012

10) $-\sqrt{19}$ 10) _____
A) -38 B) -6.333 C) -4.359 D) -19.012

Classify the number as rational or irrational.

11) $\sqrt{49}$ 11) _____
A) Rational B) Irrational

12) $-\sqrt{81}$ 12) _____
A) Rational B) Irrational

Answer Key

- 1) B
- 2) B
- 3) A
- 4) A
- 5) A
- 6) B
- 7) C
- 8) C
- 9) C
- 10) C
- 11) A
- 12) A