

Square Root 3

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

Classify the number as rational or irrational.

1) $\sqrt{180}$ 1) _____
A) Rational B) Irrational

2) $\sqrt{124}$ 2) _____
A) Rational B) Irrational

Evaluate the square root, if possible.

3) $\sqrt{-64}$ 3) _____
A) Not a real number B) 32
C) 8 D) 9

4) $\sqrt{\frac{49}{64}}$ 4) _____
A) $\frac{7}{8}$ B) $\frac{\sqrt{7}}{8}$ C) 0 D) $\frac{\sqrt{7}}{\sqrt{8}}$

Find all square roots of the number.

5) 400 5) _____
A) ± 20 B) ± 40 C) ± 22 D) ± 21

6) 49 6) _____
A) ± 9 B) ± 7 C) ± 8 D) ± 14

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) $\sqrt{0.0144x^4y^2}$ 8) _____
A) $0.13x^4y$ B) $0.72x^2y^2$ C) $0.12x^2y$ D) $0.12x^4y$

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

9) $\sqrt{34}$ 9) _____
A) 68 B) 11.333 C) 5.831 D) 34.012

10) $-\sqrt{39}$ 10) _____
A) -78 B) -13.000 C) -6.245 D) -39.012

Classify the number as rational or irrational.

11) $\sqrt{196}$ 11) _____
A) Rational B) Irrational

12) $-\sqrt{9}$ 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