

Square Root 2

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

Classify the number as rational or irrational.

1) $\sqrt{50}$ 1) _____
A) Rational B) Irrational

2) $\sqrt{105}$ 2) _____
A) Rational B) Irrational

Evaluate the square root, if possible.

3) $\sqrt{-169}$ 3) _____
A) Not a real number B) 84
C) 13 D) 14

4) $\sqrt{\frac{36}{25}}$ 4) _____
A) $\frac{6}{5}$ B) $\frac{\sqrt{6}}{5}$ C) 1 D) $\frac{\sqrt{6}}{\sqrt{5}}$

Find all square roots of the number.

5) 576 5) _____
A) ± 24 B) ± 48 C) ± 26 D) ± 25

6) 25 6) _____
A) ± 7 B) ± 5 C) ± 6 D) ± 10

Simplify. Assume that variables represent positive numbers.

7) $\sqrt{x^6}$ 7) _____
A) $\sqrt{x^3}$ B) not defined C) x^3 D) x^4

8) $\sqrt{0.0169x^4y^2}$ 8) _____
A) $0.14x^4y$ B) $0.84x^2y^2$ C) $0.13x^2y$ D) $0.13x^4y$

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

9) $\sqrt{45}$ 9) _____
A) 90 B) 15.000 C) 6.708 D) 45.012

10) $-\sqrt{43}$ 10) _____
A) -86 B) -14.333 C) -6.557 D) -43.012

Classify the number as rational or irrational.

11) $\sqrt{16}$ 11) _____
A) Rational B) Irrational

12) $-\sqrt{25}$ 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