Radicals and Irrational Numbers

Square roots, radical simplification, estimation, and irrational-number fluency.

Name _____ Date _____

32 main · 2-up grid · 11 pages · visible side quests

Completion Reward

Shown here as a small pack artifact, not a preview destination.

1. Evaluate sqrt(81). Answer with a number.

1.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

1.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

1.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

1.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

1.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

2. Evaluate sqrt(49). Answer with a number.

2.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

2.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

2.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

2.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

2.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

3. Evaluate sqrt(121). Answer with a number.

3.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

3.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

3.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

3.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

3.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

4. Between which two integers does sqrt(20) lie?

A. 3 and 4
B. 5 and 6
C. 4 and 5
D. 2 and 3

4.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

4.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

4.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

4.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

4.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

5. What is the diagonal of a 1-by-1 square?

A. sqrt(2)
B. 2
C. 1
D. sqrt(3)

5.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

5.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

5.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

5.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

5.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

6. Which number is irrational?

A. -4
B. 0.75
C. 3/11
D. pi

6.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

6.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

6.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

6.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

6.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

7. Which expression has a rational value?

A. sqrt(49)
B. sqrt(11)
C. sqrt(3)
D. sqrt(19)

7.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

7.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

7.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

7.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

7.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

8. Which number is irrational?

A. sqrt(3)
B. 4
C. 0.25
D. -7

8.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

8.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

8.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

8.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

8.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

9. What does sqrt(81) ask for?

A. The positive number whose square is 81
B. Any number whose double is 81
C. The negative number whose square is 81 only
D. The sum of factors of 81

9.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

9.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

9.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

9.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

9.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

10. Which number is irrational?

A. 0.25
B. sqrt(7)
C. -3
D. 7/8

10.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

10.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

10.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

10.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

10.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

11. What is sqrt(36)?

A. 6 or -6
B. -6
C. 36
D. 6

11.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

11.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

11.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

11.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

11.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

12. Which expression is equivalent to 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. sqrt(25)
D. 5sqrt(5)

12.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

12.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

12.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

12.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

12.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

13. Which value is rational?

A. sqrt(64)
B. sqrt(7)
C. pi
D. sqrt(10)

13.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

13.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

13.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

13.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

13.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

14. Which expression is equivalent to sqrt(32)?

A. 8sqrt(2)
B. 2sqrt(8)
C. 4sqrt(2)
D. 16sqrt(2)

14.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

14.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

14.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

14.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

14.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

15. Which decimal is closest to sqrt(45)?

A. 6.7
B. 5.4
C. 7.5
D. 8.2

15.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

15.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

15.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

15.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

15.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

16. What is the best next step to simplify sqrt(48)?

A. Rewrite 48 as 16 * 3.
B. Add 4 and 8.
C. Turn it into sqrt(4 + 4 + 4 + 4).
D. Make the answer 4sqrt(12) immediately.

16.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

16.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

16.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

16.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

16.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

17. What is the best first step to simplify sqrt(72)?

A. Look for a large perfect-square factor inside 72.
B. Add 7 and 2 first.
C. Square 72 and then undo it.
D. Change it into 72sqrt(1).

17.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

17.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

17.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

17.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

17.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

18. A student says sqrt(9 + 16) = sqrt(9) + sqrt(16). What is the issue?

A. You should multiply 9 and 16 first.
B. You should subtract the roots instead.
C. You must always square the radicand first.
D. Square roots do not distribute over addition.

18.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

18.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

18.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

18.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

18.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

19. A student says sqrt(2) + sqrt(3) = sqrt(5). What is the mistake?

A. Unlike radicals do not combine by adding the radicands.
B. They should multiply the radicands instead.
C. They forgot to square both terms first.
D. The expression should simplify to 5sqrt(6).

19.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

19.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

19.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

19.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

19.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

20. A student says sqrt(2) + sqrt(3) = sqrt(5). What is the mistake?

A. They should multiply the radicands to get sqrt(6).
B. The square root does not distribute over addition like that.
C. They should subtract the radicands to get 1.
D. They forgot to square both radicals first.

20.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

20.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

20.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

20.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

20.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

21. Which expression is equivalent to sqrt(4/9)?

A. 2/3
B. 4/9
C. 2/9
D. 4/3

21.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

21.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

21.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

21.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

21.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

22. Which expression is equivalent to sqrt(50)?

A. 25sqrt(2)
B. 10sqrt(5)
C. 5sqrt(2)
D. sqrt(25)

22.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

22.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

22.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

22.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

22.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

23. Which expression is equivalent to sqrt(72)?

A. 8sqrt(2)
B. 6sqrt(2)
C. 12sqrt(2)
D. 6sqrt(3)

23.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

23.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

23.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

23.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

23.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

24. Simplify sqrt(20). Answer with your final expression.

24.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

24.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

24.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

24.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

24.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

25. Simplify sqrt(45). Answer with your final expression.

25.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

25.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

25.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

25.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

25.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

26. Simplify 3sqrt(5) + 2sqrt(5). Answer with your final expression.

26.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

26.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

26.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

26.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

26.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

27. Simplify 7sqrt(2) - 4sqrt(2). Answer with your final expression.

27.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

27.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

27.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

27.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

27.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

28. Simplify sqrt(3) * sqrt(12). Answer with your final expression.

28.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

28.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

28.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

28.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

28.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

29. Simplify sqrt(72). Answer with your final expression.

29.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

29.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

29.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

29.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

29.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

30. Solve sqrt(x) = 9. Answer in the form x = ...

30.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

30.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

30.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

30.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

30.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

31. Which simplification is correct?

A. sqrt(18) + sqrt(2) = sqrt(20)
B. sqrt(18) = 9sqrt(2)
C. sqrt(2)^2 = 4
D. sqrt(18) * sqrt(2) = sqrt(36) = 6

31.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

31.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
D. sqrt(10)

31.3. sqrt(30) is between:

A. 4 and 5
B. 5 and 6
C. 6 and 7
D. 7 and 8

31.4. Why is sqrt(2) irrational?

A. It cannot be written as a ratio of integers
B. It is negative
C. It equals 2.0 exactly
D. It has no decimal form

31.5. What is 3sqrt(5) + 2sqrt(5)?

A. 5sqrt(10)
B. 6sqrt(5)
C. 5sqrt(5)
D. sqrt(25)

32. Which student simplifies sqrt(18) correctly?

A. Student A: sqrt(18) = sqrt(9 * 2) = 3sqrt(2).
B. Student B: sqrt(18) = sqrt(9) + sqrt(2) = 3 + sqrt(2).
C. Student C: sqrt(18) = 18sqrt(1).
D. Student D: sqrt(18) = 9sqrt(2).

32.1. What is sqrt(49)?

A. 6
B. 7
C. 14
D. 98

32.2. Which is equivalent to sqrt(20)?

A. 2sqrt(5)
B. 4sqrt(5)
C. 10sqrt(2)
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32.3. sqrt(30) is between:

A. 4 and 5
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