

NAME: _____

Study Island

1. Solve the following.

$$\sqrt{50} \times 5\sqrt{2} = ?$$

- ☐ A. 50
 - ☐ B. 11
 - ☐ C. $10\sqrt{13}$
 - ☐ D. 10
-

2. Simplify: $6\sqrt{63} - 5\sqrt{28}$

- ☐ A. $11\sqrt{7}$
 - ☐ B. $28\sqrt{7}$
 - ☐ C. $8\sqrt{7}$
 - ☐ D. $34\sqrt{7}$
-

3. Solve the following.

$$\sqrt{32} \times 4\sqrt{2} = ?$$

- ☐ A. 12
 - ☐ B. 8
 - ☐ C. $4\sqrt{34}$
 - ☐ D. 32
-

4. Simplify: $5\sqrt{5} + 2\sqrt{45}$

- ☐ A. $50\sqrt{5}$
- ☐ B. $11\sqrt{5}$
- ☐ C. $7\sqrt{5}$
- ☐ D. $21\sqrt{5}$

5. Simplify: $7\sqrt{54} - \sqrt{24}$

- ☐ A. $23\sqrt{6}$
 - ☐ B. $8\sqrt{6}$
 - ☐ C. $19\sqrt{6}$
 - ☐ D. $59\sqrt{6}$
-

6. Simplify: $5\sqrt{45} - 5\sqrt{20}$

- ☐ A. $25\sqrt{5}$
 - ☐ B. $17\sqrt{5}$
 - ☐ C. $5\sqrt{5}$
 - ☐ D. $6\sqrt{5}$
-

7. Simplify: $4\sqrt{6} + \sqrt{54}$

- ☐ A. $40\sqrt{6}$
 - ☐ B. $7\sqrt{6}$
 - ☐ C. $15\sqrt{6}$
 - ☐ D. $5\sqrt{6}$
-

8. Solve the following.

$$\sqrt{50} \times 3\sqrt{2} = ?$$

- ☐ A. 10
- ☐ B. 6
- ☐ C. 30
- ☐ D. $6\sqrt{13}$

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9.

$$\sqrt{203x}$$

The expression above should be further simplified for which value of x ?

- ☐ A. 217
 - ☐ B. 62
 - ☐ C. 67
 - ☐ D. 2
-

10.

$$8\sqrt{7x}$$

Which value of x makes the expression above equivalent to $40\sqrt{7}$?

- ☐ A. 5
 - ☐ B. 1,600
 - ☐ C. 25
 - ☐ D. 200
-

11. Simplify.

$$\sqrt{300}$$

- ☐ A. $30\sqrt{10}$
- ☐ B. $100\sqrt{3}$
- ☐ C. $10\sqrt{3}$
- ☐ D. $3\sqrt{10}$

12. Simplify.

$$\sqrt{175}$$

- ☐ A. $7\sqrt{5}$
 - ☐ B. $35\sqrt{5}$
 - ☐ C. $25\sqrt{7}$
 - ☐ D. $5\sqrt{7}$
-

13.

$$\sqrt{203x}$$

The expression above should be further simplified for which value of x ?

- ☐ A. 217
 - ☐ B. 62
 - ☐ C. 67
 - ☐ D. 2
-

14.

$$8\sqrt{7x}$$

Which value of x makes the expression above equivalent to $40\sqrt{7}$?

- ☐ A. 5
- ☐ B. 1,600
- ☐ C. 25
- ☐ D. 200