

Lesson 11-2: Operations with Radical Expressions

Part 1: Simplifying Sums and Differences

1. 060316a, P.I. A.N.3

The sum of $\sqrt{18}$ and $\sqrt{72}$ is

- [A] $\sqrt{90}$ [B] $3\sqrt{10}$
[C] $6\sqrt{3}$ [D] $9\sqrt{2}$

2. 010311a, P.I. A.N.3

The sum of $\sqrt{75}$ and $\sqrt{3}$ is

- [A] $6\sqrt{3}$ [B] $\sqrt{78}$ [C] 15 [D] 18

3. 069920a, P.I. A.N.3

The expression $\sqrt{27} + \sqrt{12}$ is equivalent to

- [A] $5\sqrt{3}$ [B] $5\sqrt{6}$
[C] $\sqrt{39}$ [D] $13\sqrt{3}$

4. 060512a, P.I. A.N.3

The expression $\sqrt{50} + \sqrt{32}$ is equivalent to

- [A] 18 [B] $\sqrt{82}$ [C] $9\sqrt{2}$ [D] 6

5. 060724a, P.I. A.N.3

The expression $\sqrt{28} + \sqrt{63}$ is equivalent to

- [A] $5\sqrt{7}$ [B] $13\sqrt{7}$
[C] $\sqrt{91}$ [D] $6\sqrt{7}$

6. 080524a, P.I. A.N.3

What is the sum of $5\sqrt{7}$ and $3\sqrt{28}$?

- [A] $9\sqrt{7}$ [B] $8\sqrt{35}$
[C] $60\sqrt{7}$ [D] $11\sqrt{7}$

7. 080614a, P.I. A.N.3

What is the sum of $\sqrt{50}$ and $\sqrt{32}$?

- [A] $\sqrt{82}$ [B] $9\sqrt{2}$
[C] $20\sqrt{20}$ [D] $\sqrt{2}$

8. 080712a, P.I. A.N.3

What is the sum of $\sqrt{50}$ and $\sqrt{8}$?

- [A] $29\sqrt{2}$ [B] $9\sqrt{2}$
[C] $7\sqrt{2}$ [D] $\sqrt{58}$

9. 010826a, P.I. A.N.3

The expression $\sqrt{28} - \sqrt{7}$ is equivalent to

- [A] 4 [B] $\sqrt{7}$ [C] $3\sqrt{7}$ [D] 2

10. 080016a, P.I. A.N.3

The expression $2\sqrt{50} - \sqrt{2}$ is equivalent to

- [A] $9\sqrt{2}$ [B] $2\sqrt{48}$
[C] 10 [D] $49\sqrt{2}$

11. 060218a, P.I. A.N.3

The expression $\sqrt{90} \cdot \sqrt{40} - \sqrt{8} \cdot \sqrt{18}$ simplifies to

- [A] 22.9 [B] 3,456 [C] 864 [D] 48

- [1] D
- [2] A
- [3] A
- [4] C
- [5] A
- [6] D
- [7] B
- [8] C
- [9] B
- [10] A
- [11] D