

2.3 Add and Subtract Radicals

Simplify.

1) $-\sqrt{27} - 2\sqrt{3}$

2) $-3\sqrt{20} + 3\sqrt{20}$

3) $2\sqrt{24} + 3\sqrt{54}$

4) $-2\sqrt{2} + 2\sqrt{18}$

5) $-\sqrt{45} + 3\sqrt{5} + 2\sqrt{5}$

6) $3\sqrt{20} - 3\sqrt{6} - \sqrt{6}$

7) $2\sqrt{5} - \sqrt{27} - 2\sqrt{3}$

8) $3\sqrt{20} + 3\sqrt{6} + 3\sqrt{54}$

9) $-3\sqrt{12} - 3\sqrt{27} - \sqrt{5}$

10) $3\sqrt{24} + 3\sqrt{27} - \sqrt{27}$

11) $-2\sqrt{20} + 3\sqrt{5} - \sqrt{5}$

12) $3\sqrt{20} - 2\sqrt{27} + 2\sqrt{5}$

13) $-\sqrt{6} - \sqrt{24} + 2\sqrt{20}$

14) $3\sqrt{18} + 3\sqrt{20} - 2\sqrt{18}$

15) $-3\sqrt{24} + 2\sqrt{24} - \sqrt{5} + 2\sqrt{24}$

16) $3\sqrt{6} - 2\sqrt{5} + 2\sqrt{20} - \sqrt{20}$

17) $3\sqrt{6} + 2\sqrt{54} - \sqrt{18} + 3\sqrt{6}$

18) $-3\sqrt{12} - 3\sqrt{12} + 3\sqrt{6} - 3\sqrt{54}$

REVIEW: Simplify. Your answer should contain only positive exponents.

19) $3x^{\frac{5}{3}} \cdot x^{\frac{5}{3}}$

20) $\frac{b^{\frac{1}{2}}}{b^{-2}}$

21) $\left(\frac{4}{n^3}\right)^{-\frac{1}{2}}$

22) Simplify.

$$-4x(8x - 5) - (9x^2 - 10x + 4)$$

23) Find the sum.

$$5x - 4y + 9$$

$$2y + 7$$

24) Where are the zeros of $x^3 - 5x^2 + 4x$?25) Write an equation to represent the following transformations to $f(x) = x^2$

Shift Up 5
Shift Left 4
Stretch 3
Reflection

26) Bob mowed $2x^2 + 5x - 3$ yards on Monday, $4x - 7$ yards on Tuesday, and $3x^2 + 10$ yards on Wednesday.

a) How many yards did he mow in the three days?