**Unit 5:  Radicals**

Name: _____

Date: _____

1.  The sum of $\sqrt{12}$ and $5\sqrt{3}$ is

   A.  $10\sqrt{3}$    B.  $7\sqrt{6}$    C.  $7\sqrt{3}$    D.  360

2.  The sum of $\sqrt{50}$ and $\sqrt{18}$ is

   A.  $2\sqrt{17}$    B.  $8\sqrt{2}$    C.  $15\sqrt{2}$    D.  34

3.  Which is equivalent to $4\sqrt{3}$?

   A.  144    B.  $\sqrt{48}$    C.  $\sqrt{19}$    D.  $\sqrt{16}$

4.  The expression $\sqrt{200}$ is equivalent to

   A.  $25\sqrt{8}$          B.  $100\sqrt{2}$
   C.  $2\sqrt{10}$          D.  $10\sqrt{2}$

5.  The expression $\sqrt{50}$ is equivalent to

   A.  $5\sqrt{2}$    B.  $25\sqrt{2}$    C.  $2\sqrt{5}$    D.  $5\sqrt{10}$

6.  The expression $5\sqrt{3} - \sqrt{27}$ is equivalent to

   A.  $8\sqrt{3}$    B.  $-8\sqrt{3}$    C.  $-2\sqrt{3}$    D.  $2\sqrt{3}$

7.  The expression $2\sqrt{5}$ is equivalent to

   A.  $\sqrt{10}$    B.  $\sqrt{20}$    C.  $\sqrt{50}$    D.  $\sqrt{100}$

8.  The expression $2\sqrt{5}$ is equivalent to

   A.  $\sqrt{10}$    B.  $\sqrt{20}$    C.  $\sqrt{50}$    D.  $\sqrt{100}$

9.  The sum of $\sqrt{27}$ and $6\sqrt{3}$ is

   A.  $7\sqrt{30}$    B.  $9\sqrt{3}$    C.  $9\sqrt{6}$    D.  $15\sqrt{3}$

10.  If the sum of $\sqrt{50}$ and $x\sqrt{2}$ is $8\sqrt{2}$, find the value of $x$.

11.  The expression $2\sqrt{3} - \sqrt{27}$ is equivalent to

   A.  $2\sqrt{24}$    B.  $5\sqrt{3}$    C.  $-5\sqrt{3}$    D.  $-\sqrt{3}$

12.  What is the sum of $3\sqrt{5}$ and $\sqrt{20}$?

   A.  15    B.  $5\sqrt{5}$    C.  $5\sqrt{10}$    D.  $6\sqrt{5}$

13.  The sum of $\sqrt{50}$ and $\sqrt{2}$ is

   A.  $\sqrt{52}$    B.  10    C.  $6\sqrt{2}$    D.  12

**Unit 5: Radicals**

14. Which is equivalent to $\sqrt{40}$?

    A. $2\sqrt{10}$   B. $2\sqrt{20}$   C. $4\sqrt{10}$   D. $10\sqrt{2}$

15. The expression $\sqrt{500}$ is equivalent to

    A. $5\sqrt{10}$            B. $10\sqrt{5}$

    C. $500\sqrt{2}$           D. $5\sqrt{100}$

16. The expression $\sqrt{27} + \sqrt{12}$ is equal to

    A. $13\sqrt{3}$   B. $5\sqrt{3}$   C. $5\sqrt{6}$   D. $\sqrt{39}$

17. The expression $5\sqrt{8} - 3\sqrt{2}$ is equivalent to

    A. $7$       B. $7\sqrt{2}$   C. $2\sqrt{6}$   D. $\sqrt{34}$

18. The expression $\sqrt{18} + \sqrt{32}$ is equivalent to

    A. $2\sqrt{7}$   B. $5\sqrt{2}$   C. $7\sqrt{2}$   D. $13\sqrt{2}$

19. The expression $3\sqrt{27} - \sqrt{12}$ is equivalent to

    A. $7\sqrt{3}$   B. $23\sqrt{3}$   C. $15\sqrt{3}$   D. $4\sqrt{3}$

20. The expression $\sqrt{500}$ is equivalent to

    A. $50\sqrt{10}$            B. $5\sqrt{10}$

    C. $10\sqrt{5}$            D. $10\sqrt{50}$

21. The expression $\sqrt{75}$ is equal to

    A. $2\sqrt{5}$   B. $3\sqrt{5}$   C. $5\sqrt{2}$   D. $5\sqrt{3}$

22. The sum of $\sqrt{12}$ and $5\sqrt{3}$ is

    A. $7\sqrt{3}$   B. $10\sqrt{3}$   C. $6\sqrt{15}$   D. $15\sqrt{3}$

23. The expression $2\sqrt{2} + \sqrt{50}$ is equivalent to

    A. $2\sqrt{52}$   B. $3\sqrt{52}$   C. $7\sqrt{2}$   D. $27\sqrt{2}$

24. The expression $2\sqrt{2} + \sqrt{50}$ is equivalent to

    A. $2\sqrt{52}$   B. $3\sqrt{52}$   C. $7\sqrt{2}$   D. $27\sqrt{2}$

25. The sum of $3\sqrt{5}$ and $6\sqrt{5}$ is

    A. $18\sqrt{5}$   B. $45$   C. $9\sqrt{10}$   D. $9\sqrt{5}$

26. What is $5\sqrt{2} - \sqrt{18}$ expressed in simplest radical form?

    A.  $2\sqrt{2}$    B.  $-2\sqrt{2}$   C.  $8\sqrt{2}$    D.  $-8\sqrt{2}$

27. Expressed in radical form, what is the product of $2\sqrt{7}$ and $3\sqrt{5}$?

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

    A.  22.9    B.  48    C.  864    D.  3,456

29. The expression $\dfrac{6\sqrt{20}}{3\sqrt{5}}$ is equivalent to

    A.  $3\sqrt{15}$   B.  $2\sqrt{15}$   C.  8    D.  4

30. Express the product of $3\sqrt{20}(2\sqrt{5} - 7)$ in simplest radical form.

31. What is $\sqrt{32}$ expressed in simplest radical form?

    A.  $16\sqrt{2}$   B.  $4\sqrt{2}$   C.  $4\sqrt{8}$   D.  $2\sqrt{8}$

Unit 5:  Radicals     01/22/2013

1.
Answer:        C

2.
Answer:        B

3.
Answer:        B

4.
Answer:        D

5.
Answer:        A

6.
Answer:        D

7.
Answer:        B

8.
Answer:        B

9.
Answer:        B

10.
Answer:        3

11.
Answer:        D

12.
Answer:        B

13.
Answer:        C

14.
Answer:        A

15.
Answer:        B

16.
Answer:        B

17.
Answer:        B

18.
Answer:        C

19.
Answer:        A

20.
Answer:        C

21.
Answer:        D

22.
Answer:        A

23.
Answer:        C

24.
Answer:        C

25.
Answer:        D

26.
Answer:        A

27.
Answer:        $6\sqrt{35}$

28.
Answer:        B

29.
Answer:        D

30.
Answer:        $60 - 42\sqrt{5}$

31.
Answer:        B