ALC Liberal Arts Math

Unit 4

1. A number whose square root is a whole number

 a. like terms

 b. perfect square

 c. radical expression

 d. radical sign

2. A numerical expression containing a radical sign

 a. like terms

 b. perfect square

 c. radical expression

 d. radical sign

3. Terms that have the same variables and the same corresponding exponents

 a. like terms

 b. perfect square

 c. radical expression

 d. radical sign

4. A number under the radical sign that is not a product with a perfect square factor

 a. radical sign

 b. rational number

 c. simplest radical form

 d. square root

5. A real number that cannot be expressed as a ratio of two integers

 a. radical sign

 b. irrational number

 c. simplest radical form

 d. square root

6. $\sqrt{50}$ in its simplest radical form is

 a. $5\sqrt{2}$

 b. $2\sqrt{5}$

 c. 5

 d. $5\sqrt{5}$

7. $\sqrt{64}$ in its simplest form is

 a. $4$

 b. $2\sqrt{8}$

 c. 8

 d. $\sqrt{32}$

8. $\sqrt{300}$ in its simplest radical form is

 a. $3\sqrt{10}$

 b. $10\sqrt{3}$

 c. 150

 d. $\sqrt{150}$

9. $2\sqrt{40}$ in its simplest radical form is

 a. $2\sqrt{10}$

 b. $10\sqrt{3}$

 c. 20

 d. $4\sqrt{10}$

10. $\sqrt{242}$ in its simplest radical form is

 a. $2\sqrt{11}$

 b. $\sqrt{121}$

 c. $11\sqrt{2}$

 d. $121$

11. $\frac{6}{\sqrt{5}}$ in its simplest radical form is

 a. $\frac{6\sqrt{5}}{5}$

 b. $\frac{\sqrt{5}}{5}$

 c. $6\sqrt{5}$

 d. $5\sqrt{6}$

12. $\frac{7}{\sqrt{10}}$ in its simplest radical form is

 a. $10\sqrt{7}$

 b. $\frac{\sqrt{10}}{10}$

 c. $7\sqrt{10}$

 d. $\frac{7\sqrt{10}}{10}$

13. $\frac{3}{\sqrt{5}}$ in its simplest radical form is

 a. $3\sqrt{5}$

 b. $\frac{3\sqrt{5}}{5}$

 c. $5\sqrt{3}$

 d. $\frac{\sqrt{5}}{5}$

14. $\frac{10}{\sqrt{6}}$ in its simplest radical form is

 a. $6\sqrt{5}$

 b. $\frac{5\sqrt{6}}{3}$

 c. $5\sqrt{6}$

 d. $\frac{\sqrt{6}}{3}$

15. $\sqrt{\frac{2}{3}}$ in its simplest radical form is

 a. $6\sqrt{5}$

 b. $\frac{5\sqrt{6}}{3}$

 c. $5\sqrt{6}$

 d. $\frac{\sqrt{6}}{3}$

16. ($\sqrt{6}-2)(\sqrt{5}+7)$ in its simplest radical form is

 a. $\sqrt{30}+7\sqrt{6}-2\sqrt{5}-14$

 b. $\sqrt{30}+7\sqrt{6}-14$

 c. $\sqrt{30}-2\sqrt{5}-14$

 d. $\sqrt{30}+7\sqrt{6}-2\sqrt{5}$

17. ($5-\sqrt{3})(2+\sqrt{7})$ in its simplest radical form is

 a. $-\sqrt{21}-2\sqrt{3}-5\sqrt{7}-10$

 b. $-\sqrt{21}+10$

 c. $-\sqrt{21}-2\sqrt{3}+5\sqrt{7}+10$

 d. $-\sqrt{21}-5\sqrt{7}+10$

18. ($4+5\sqrt{2})(2-\sqrt{2})$ in its simplest radical form is

 a. $6\sqrt{2}+2$

 b. $\sqrt{2}+2$

 c. $6\sqrt{2}-2$

 d. $6\sqrt{2}$

19. ($2\sqrt{5}-3)(\sqrt{5}+6)$ in its simplest radical form is

 a. $9\sqrt{5}+2$

 b. $9\sqrt{5}-8$

 c. $9\sqrt{5}+8$

 d. $9\sqrt{5}$

20. ($6\sqrt{5}+4)(6\sqrt{5}-4)$ in its simplest radical form is

 a. 164

 b. $\sqrt{164}-4$

 c. $36\sqrt{5}-4$

 d. $36\sqrt{5}$