

SECTION III.

INVOLUTION AND EVOLUTION.

1. Use each of the following numbers twice as a factor, and give the products : 3; 4; 5; 8; 10; 12.

2. Use each of the numbers given in exercise 1 three times as a factor, and give the products.

3. What is the fourth power of 2? of 3? of 4? of 1?

4. What is the third power of 4? of 5? of 6? of 7?

5. Name the squares of the numbers from 1 to 10 inclusive.

6. Name the squares of the numbers from 11 to 20 inclusive.

7. Name the cubes of the numbers from 1 to 6 inclusive.

8. Name the cubes of the numbers from 7 to 12 inclusive.

9. What is the square of $\frac{1}{2}$? of $\frac{1}{4}$? of $\frac{3}{4}$? of .5?

10. What is the cube of $\frac{1}{2}$? of $\frac{3}{4}$? of $\frac{1}{4}$? of .3?

11. Find the indicated powers of the following numbers : 18^3 ; 20^3 ; $(1\frac{1}{2})^3$; $.8^3$; 2.5^3 .

Find the value of :

12. $8^2 \times 3$.

16. $(\frac{3}{4})^2 \div \frac{1}{4}$.

20. $3^3 \div 3^2 \times (\frac{1}{2})^2$.

24. 1.5^2 .

13. $3^3 \times 4$.

17. $3^2 \times (\frac{1}{2})^2$.

21. $(\frac{1}{2})^3 \times 8^2 + 10^2$.

25. $(.6\frac{1}{2})^3$.

14. $9^2 \div 3^2$.

18. $(4\frac{1}{2})^2 \times .2^2$.

22. $9^2 \times (\frac{1}{3}) + 16^2$.

26. $(.03\frac{1}{2})^4$.

15. $8^3 \div 4^2$.

19. $.05^3 \times (\frac{1}{2})^4$.

23. $(\frac{2}{3})^2 + (\frac{1}{2} + \frac{1}{4})^2$.

27. $(.16\frac{2}{3})^3$.

28. Raise to the second power : 40 ; 84 ; 99 ; 100 ; 560.

29. Raise to the second power : 830 ; 326 ; 689 ; 999 ; 1000.

Find the value of :

30. 286^2 .

33. 3.01^2 .

36. 80.2^4 .

39. 4.45^3 .

31. 4.58^2 .

34. 75^4 .

37. $(4\frac{1}{2})^3$.

40. $(8\frac{3}{4})^4$.

32. $.0075^3$.

35. 1.0501^2 .

38. 8^5 .

41. $(72\frac{1}{2})^3$.