

### § 5.3. Домашнее задание (письменное)

Письменно решить номера 8.5.19 – 8.5.43.

*Найти интегралы:*

$$8.5.19. \quad \int \frac{dx}{\cos x}.$$

$$8.5.20. \quad \int \frac{dx}{1 - \sin x}.$$

$$8.5.21. \quad \int \frac{dx}{5 + 4 \sin x}.$$

$$8.5.22. \quad \int \frac{2 - \sin x}{2 + \cos x} dx.$$

$$8.5.23. \quad \int \frac{dx}{2 \sin x - \cos x + 5}.$$

$$8.5.24. \quad \int \frac{1 + \sin x}{(1 + \cos x) \sin x} dx.$$

$$8.5.25. \quad \int \frac{dx}{5 \sin^2 x - 3 \cos^2 x + 4}.$$

$$8.5.26. \quad \int \frac{dx}{4 \sin^2 x + 9 \cos^2 x}.$$

$$8.5.27. \quad \int \frac{dx}{1 + 3 \cos^2 x}.$$

$$8.5.28. \quad \int \frac{dx}{\sin^4 x}.$$

$$8.5.29. \quad \int \sin^5 x dx.$$

$$8.5.30. \quad \int \sin^4 x \cdot \cos^5 x dx.$$

$$8.5.31. \quad \int \frac{\sin 2x dx}{\cos^7 x}.$$

$$8.5.32. \quad \int \frac{\sin^4 x dx}{\cos x}.$$

$$8.5.33. \quad \int \sin^6 x dx.$$

$$8.5.34. \quad \int \sin^2 x \cdot \cos^4 x dx.$$

$$8.5.35. \quad \int \sin^4 x \cdot \cos^4 x dx.$$

$$8.5.36. \quad \int \sin x \cdot \sin 3x dx.$$

$$8.5.37. \quad \int \sin \frac{x}{12} \cdot \cos \frac{x}{3} dx.$$

$$8.5.38. \quad \int \cos x \cdot \cos 3x dx.$$

$$8.5.39. \quad \int \cos x \cdot \cos 3x \cdot \cos 5x dx.$$

$$8.5.40. \quad \int \operatorname{ctg}^6 x dx.$$

$$8.5.41. \quad \int \operatorname{tg}^4 \frac{x}{2} dx.$$

$$8.5.42. \quad \int \operatorname{tg}^7 x dx.$$