For exercises 1–20, evaluate the following integrals.

1. $\int \sin(x) \cos^2(x) \, dx$

8. $\int \csc^4(x) \cot(x) \, dx$

2. $\int \sin^3(x) \cos^4(x) \, dx$

9. $\int \csc^8(x) \cot^2(x) \, dx$

3. $\int \sin^2(x) \, dx$

10. $\int \cot^3(x) \csc^4(x) \, dx$

4. $\int \cos^3(x) \sin^4(x) \, dx$

11. $\int \sec^5(x) \, dx$

5. $\int \sec^2(x) \tan(x) \, dx$

12. $\int \sin^4(x) \, dx$

6. $\int \sec^3(x) \tan^3(x) \, dx$

13. $\int \csc^3(x) \, dx$

7. $\int \sin^5(x) \sec^6(x) \, dx$

14. $\int \tan^3(x) \, dx$

15. $\displaystyle\int \sec^4(x)\,dx$

16. $\displaystyle\int \tan^4(x)\,dx$

17. $\displaystyle\int \cos(11x)\cos(2x)\,dx$

18. $\displaystyle\int \sin(13x)\sin(9x)\,dx$

19. $\displaystyle\int \cos(11x)\sin(3x)\,dx$

20. $\displaystyle\int \left(\sin(x)\cos^2(8x) - \sin^2(8x)\sin(x)\right)\,dx$