

1. $\int x\sqrt{3x^2 - 1} \, dx$

2. $\int x^2 \sin x \, dx$

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

4. $\int \sqrt{3x - 2} \, dx$

5. $\int x^2 \sqrt{x^3 + 1} \, dx$

6. $\int \frac{x^2+1}{2} \, dx$

7. $\int \frac{(1-x)^2}{\sqrt{x}} \, dx$

8. $\int 5x^2 - 6x + 3 - 2\sqrt{x} + \frac{5}{x^3} - \frac{7}{\sqrt[4]{x}} \, dx$

9. $\int (2x^3 - \sqrt[3]{x})^2 \, dx$

LÖSUNGEN:

1. $\frac{1}{9}\sqrt{(3x^2 - 1)^3} + C$

2. $-x^2 \cos x + 2x \sin x + 2 \cos x + C$

3. $-\frac{\cos^3 x}{3} + C$

4. ...

5. $\frac{2}{9}\sqrt{(x^3 + 1)^3} + C$

6. $\frac{x^3}{6} + \frac{1}{2}x + C$

7. $2\sqrt{x} - \frac{4}{3}\sqrt{x^3} + \frac{2}{5}\sqrt{x^5} + C$

8. $\frac{5x^3}{3} - 3x^2 + 3x - \frac{4}{3}\sqrt{x^3} - \frac{5}{2}x^2 - \frac{28}{3}\sqrt[4]{x^3} + C$

9. $\frac{4}{7}x^7 - \frac{12}{13}x^{\frac{13}{3}} + \frac{3}{5}x^{\frac{5}{3}} + C$