1. $\int \frac{\tan(\sqrt{x})}{\sqrt{x}} dx = -2\ln|\cos\sqrt{x}|$ **Punts: 0.5 pt**

2. $\int \sqrt[3]{7x^5 + x^3} dx = \frac{3}{56}(7x^2+1)^{\frac{4}{3}}$ **Punts: 0.5 pt**

3. $\int \cos(x)\cot^2(x) dx = \frac{-1}{\sin x} - \sin x$ **Punts: 1 pt**

4. $\int 2^{\ln x} dx = \frac{(2e)^{\ln x}}{\ln(2e)} = \frac{x2^{\ln x}}{\ln 2 + 1}$ **Punts: 1 pt**

5. $\int (\tan^{2025}(x) + \tan^{2023}(x)) dx = \frac{\tan^{2024}(x)}{2024}$ **Punts: 1 pt**

6. $\int \frac{\sqrt{x}}{1+x} dx = 2\sqrt{x} - 2\arctan(\sqrt{x})$ **Punts: 1 pt**

7. $\int \frac{x^2 - 4x + 5}{x^2 - 4x + 8} dx = x - \frac{3}{2}\arctan(\frac{x-2}{2})$ **Punts: 1.5 pt**

8. $\int \frac{1}{x^2}\sqrt{\frac{x+4}{x}} dx = \frac{-1}{6}\left(\frac{x+4}{x}\right)^{\frac{3}{2}}$ **Punts: 1.5 pt**

9. $\int e^x \cos x dx = \frac{e^x \sin x + e^x \cos x}{2}$ **Punts: 1.5 pt**

10. $\int x\ln\left(1+\frac{1}{x}\right) dx = \frac{(x^2-1)\ln(x+1)}{2} - \frac{x^2}{2}\ln x - \frac{x}{2} = \frac{x^2}{2}\ln\left(1+\frac{1}{x}\right) + \frac{x}{2} - \frac{1}{2}\ln(x+1)$ **Punts: 1.5 pt**

11. $\int \frac{1+\ln^3(x)}{x(\ln^2 x - \ln x)} dx = -\ln(\ln(x)) + 2\ln(\ln(x)-1) + \frac{\ln^2(x)}{2} + \ln(x)$ **Punts: 2.5 pt**

12. $\int \frac{dx}{4\sin x + 3\cos x + 5} = \frac{-1}{2+\tan\left(\frac{x}{2}\right)} = \frac{\sin(\frac{x}{2})}{2\sin(\frac{x}{2}) + 4\cos(\frac{x}{2})}$ **Punts: 3 pt**