Compute the following integrals:

1. $\dfrac{1}{22}(2x-3)^{11}$

2. $\dfrac{1}{2}\ln(x^2+x+1)+\dfrac{1}{\sqrt{3}}\arctan\dfrac{2x+1}{\sqrt{3}}$

3. $\ln|x-2|+\ln|x+5|$

4. $\dfrac{1}{2}\ln\left|\dfrac{(x+2)^4}{(x+1)(x+3)^3}\right|$

5. $\dfrac{1}{4}\ln\left|\dfrac{x-1}{x+1}\right|-\dfrac{1}{2}\arctan x$

6. $\dfrac{7x^5-11x}{32(x^4-1)^2}+\dfrac{21}{128}\ln\left|\dfrac{x-1}{x+1}\right|-\dfrac{21}{64}\arctan x$

7. $\sin x-\dfrac{2}{3}\sin^3 x+\dfrac{1}{5}\sin^5 x$

8. $\dfrac{1}{4}\tan^4 x-\dfrac{1}{2}\tan^2 x-\ln|\cos x|$

9. $-\dfrac{1}{8}\cos 4x-\dfrac{1}{12}\cos 6x$

10. $x-\dfrac{1}{\sqrt{2}}\arctan(\sqrt{2}\tan x)$