FILA A:

1. $D(\cos\ln x^2) = (-\sin\ln x^2)\cdot\frac{1}{x^2}\cdot 2x = \mathbf{-\frac{2}{x}\sin\ln x^2}$
2. $D\left(\ln\sqrt{\frac{2x+1}{x-1}}\right) = D\left(\frac{1}{2}\ln\frac{2x+1}{x-1}\right) = \frac{1}{2}\cdot\frac{x-1}{2x+1}\cdot\frac{2(x-1)-(2x+1)}{(x-1)^2} = \frac{2x-2-2x-1}{2\,(2x+1)(x-1)} = \mathbf{-\frac{3}{2(2x+1)(x-1)}}$
3. $D(3x-1)^4 = 4(3x-1)^3\cdot 3 = \mathbf{12\,(3x-1)^3}$
4. $D\left(\frac{1}{(3x-2)^2}\right) = D(3x-2)^{-2} = -2\,(3x-2)^{-3}\cdot 3 = \mathbf{-\frac{6}{(3x-2)^3}}$
5. $D\left(\frac{1+x^2\cos x}{\cos x}\right) = D\left(\frac{1}{\cos x}+x^2\right) = -\frac{-\sin x}{\cos^2 x}+2x = \mathbf{\frac{\sin x}{\cos^2 x}+2x}$
6. $D\left(\frac{e^{\cos x}}{x}\right) = \frac{-x\sin x\,e^{\cos x}-1e^{\cos x}}{x^2} = \mathbf{-\frac{e^{\cos x}}{x^2}(x\sin x+1)}$

FILA B:

1. $D(\cos\ln(2x)) = (-\sin\ln(2x))\cdot\frac{1}{2x}\cdot 2 = \mathbf{-\frac{1}{x}\sin\ln(2x)}$
2. $D\left(\ln\sqrt{\frac{x+1}{2x-1}}\right) = D\left(\frac{1}{2}\ln\frac{x+1}{2x-1}\right) = \frac{1}{2}\cdot\frac{2x-1}{x+1}\cdot\frac{2x-1-2(x+1)}{(2x-1)^2} = \frac{2x-1-2x-2}{2\,(2x-1)(x+1)} = \mathbf{-\frac{3}{2(2x-1)(x+1)}}$
3. $D(4x-1)^3 = 3(4x-1)^2\cdot 4 = \mathbf{12\,(4x-1)^2}$
4. $D\left(\frac{1}{(2x-2)^3}\right) = D\left(\frac{1}{8(x-1)^3}\right) = \frac{1}{8}D(x-1)^{-3} = -\frac{3}{8}\,(x-1)^{-4} = \mathbf{-\frac{3}{8\,(x-1)^4}}$
5. $D\left(\frac{1+x^3\sin x}{\sin x}\right) = D\left(\frac{1}{\sin x}+x^3\right) = \mathbf{-\frac{\cos x}{\sin^2 x}+3x^2}$
6. $D\left(\frac{e^{\sin x}}{x}\right) = \frac{x\cos x\,e^{\sin x}-1e^{\sin x}}{x^2} = \mathbf{\frac{e^{\sin x}}{x^2}(x\cos x-1)}$