

FP Exercise 3

$$\begin{aligned}
 19) & (2m-3)(2m-3) - (4m^2-4)^2 \\
 &= 2m(2m-3) - 3(2m-3) - (4m^2-4)^2 \\
 &= 4m^2 - 6m - 3(2m-3) - (4m^2-4)^2 \\
 &= 4m^2 - 6m - 6m + 9 - (4m^2-4)^2 \\
 &= 4m^2 - 12m + 9 - 64m^4 + 16 \\
 &= -64m^4 + 68m^2 - 12m + 9
 \end{aligned}$$

$$a^2 - b^2 = (a+b)(a-b)$$

$$a = 2m - 3$$

$$b = 4m^2 - 4$$

$$\begin{aligned}
 &\rightarrow -(2m-1)(4m+1)(2m-7+4m^2) \\
 &= -(4m^2+2m-7)(4m+1)(2m-1)
 \end{aligned}$$