1.

Express $\dfrac{13-2x}{(2x-3)(x+1)}$ in partial fractions.

2.

$$f(x)=\frac{4-2x}{(2x+1)(x+1)(x+3)}=\frac{A}{2x+1}+\frac{B}{x+1}+\frac{C}{x+3}$$

Find the values of the constants A, B and C.

3.

$$f(x)=\frac{27x^2+32x+16}{(3x+2)^2(1-x)}$$

Given that f(x) can be expressed in the form

$$f(x)=\frac{A}{(3x+2)}+\frac{B}{(3x+2)^2}+\frac{C}{(1-x)},$$

find the values of B and C and show that $A = 0$.
