$V_0 = 1.5$ Volts

Parallel :

1) 5μF ~~kHz drive~~	1.4 ± 0.2 divs	=	0.7 ± 0.1V
6μF	1.6 ± 0.2 divs	=	0.8 ± 0.1V
4μF	1.2 ± 0.2 divs	=	0.6 ± 0.1V
7μF	1.7 ± 0.2 divs	=	0.85 ± 0.1V
8μF	1.9 ± 0.2 divs	=	0.95 ± 0.1V
3μF	1.0 ± 0.2 divs	=	0.5 ± 0.1V

Series :

V_1)

1.3 ± 0.2 divs	=	~~0.25 divs~~ 0.65 ± 0.1V
1.3 ± 0.2 divs	=	0.65 ± 0.1V
1.3 ± 0.2 divs	=	0.65 ± 0.1V

V_2)

Voltage

1.8 ± 0.2 divs	=	0.9 ± 0.1V
1.8 ± 0.2 divs	=	0.9 ± 0.1V
1.8 ± 0.2 divs	=	0.9 ± 0.1V

$V = V_0 (C_1 / (C_1 + C_2))$

$C_1 = \frac{C_2 V_2}{V_0 - V}$

5) $V1 = \frac{(V_0 * x\ (1)}{C1+C2}$

$V2 = \left(\frac{V_0 \times C2}{C1+C2}\right)$