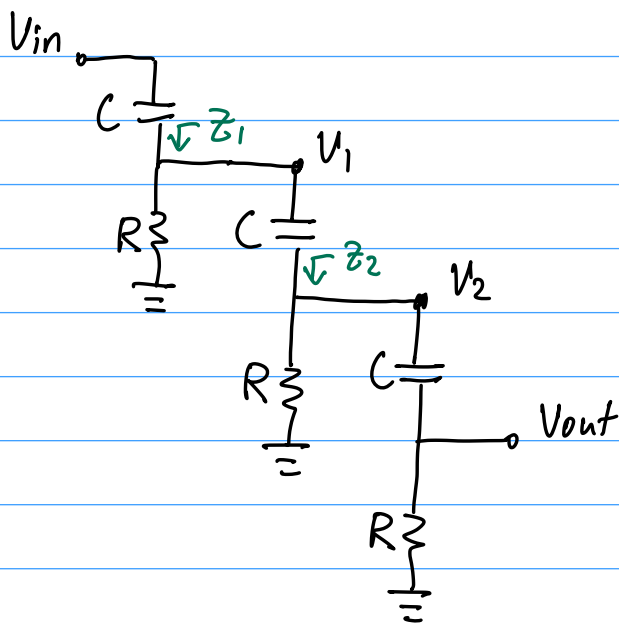Redraw as a cascade of voltage dividers.

$$Z_2 = R \parallel \left(\frac{1}{sc} + R\right)$$
$$= \frac{\frac{R}{sc} + R^2}{\frac{1}{sc} + 2R}$$
$$= \frac{R + sR^2C}{1 + 2sRC}$$

$$Z_1 = R \parallel \left(\frac{1}{sc} + Z_2\right)$$
$$= \frac{\frac{R}{sc} + RZ_2}{\frac{1}{sc} + R + Z_2}$$
$$= \frac{R + sRC Z_2}{1 + sRC + sCZ_2}$$

Next write voltage divider expressions.

$$V_1 = V_{in} \frac{Z_1}{\frac{1}{sc} + Z_1} = \frac{V_{in} sCZ_1}{1 + sCZ_1}$$

$$V_2 = V_1 \frac{Z_2}{\frac{1}{sc} + Z_2} = \frac{V_1 sCZ_2}{1 + sCZ_2} = V_{in} \left(\frac{sC Z_1}{1 + sCZ_2}\right)\left(\frac{sC Z_2}{1 + sCZ_2}\right)$$

$$V_{out} = \frac{V_2 R}{\frac{1}{sc} + R} = \frac{V_2 sCR}{1 + sCR}$$

$$\frac{V_{out}}{V_{in}} = \left(\frac{sC Z_1}{1 + sCZ_1}\right)\left(\frac{sC Z_2}{1 + sCZ_2}\right)\left(\frac{sCR}{1 + sCR}\right)$$

Now use a computer algebra system!

```
syms s R C Vin

Z2 = (R + s*R^2*C) / (1 + 2*s*R*C);
Z1 = (R + s*R*C*Z2) / (1 + s*R*C + s*C*Z2);
H = simplify( (s*C*Z1)/(1 + s*C*Z1) * (s*C*Z2)/(1 + s*C*Z2) * (s*C*R)/(1 + s*C*R))
```

H =

$$\frac{C^3 R^3 s^3}{C^3 R^3 s^3 + 6 C^2 R^2 s^2 + 5 C R s + 1}$$