

You probably rewrote the equation as  $9^{8-3x} = 3^{4x-4}$ , which is true, but then incorrectly set the exponents equal to each other and solved for  $x$ . Those exponents are not equal because the bases are not equal. Instead, rewrite the equation as  $9^{8-3x} = 9^{2x-2}$ , and *then* set the exponents equal.