

70. (a) and (b) Straightforward application of Eq. 36-3 and $v = \Delta x / \Delta t$ yields the result: pistol 1 with a time equal to 42.03×10^{-12} s; pistol 2 with a time equal to 42.3×10^{-12} s; pistol 3 with a time equal to 43.2×10^{-12} s; and, pistol 4 with a time equal to 41.96×10^{-12} s. We see that the blast from pistol 1 arrives first.