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The partition of a Coxeter group W into left, right, and two-sided Kazhdan–Lusztig cells is closely related to topics in combinatorics, representation theory, and algebraic geometry. Lusztig's \mathbf{a} -function, which is a function from W to the nonnegative integers, takes constant values on each Kazhdan–Lusztig cell. For $w \in W$, we have $\mathbf{a}(w) = 0$ if and only if w is the identity, and we have $\mathbf{a}(w) = 1$ if and only if w is a nonidentity element that is “rigid”, meaning that it has a unique reduced expression. It is not difficult to classify the irreducible Coxeter groups having finitely many rigid elements. This talk will discuss the solution of the analogous problem for elements of \mathbf{a} -value 2. (Received August 01, 2018)