$$\begin{array}{ccc} cat & \to & \mathbf{2}, 4, \mathbf{8}, 16, 19, 23, 28, 43 \\ dog & \to & 1, \mathbf{2}, 3, 5, \mathbf{8}, 41, 51, 60, 71 \\ \mathbf{merged} & \to & 2, 8 \end{array}$$

$$cat \rightarrow \mathbf{2}, 4, \mathbf{8}, 16, 19, 23, 28, 43$$
  $dog \rightarrow 1, \mathbf{2}, 3, 5, \mathbf{8}, 41, 51, 60, 71$ 

$$dog \rightarrow \mathbf{2}, 3, 8, 11, 17, 21, 31, 140, \mathbf{151}$$

$$the \rightarrow 1, 2, 3, 4, 8, 11, 17, 21, 31, 41, 64, 128, 140, 151 \\ cat \rightarrow 1, 2, 4, 41, 64, 128, 151 \\ dog \rightarrow 1, 2, 3, 8, 11, 17, 21, 31, 140, 151 \\ jumped \rightarrow 2, 151 \\ "the cat" \rightarrow 1, 2, 4, 41, 64, 128, 151 \\ "cat dog" \rightarrow 1, 2, 151$$

"dog jumped"  $\rightarrow$  2,151

