When the elevator was moving upward at a constant speed, the scale reading $S$, was 50 N. As it further accelerated upward, the rope suddenly broke.

After this what is the scale reading?

A) $S = 0$ N
B) $0 < S < 50$ N
C) $S = 50$ N
D) $S > 50$ N
After the rope breaks $a = g$.

Using the equation given in the hint, one finds that $F_{scale} = 0$ or $S = 0$ N.

Answer A.

05.07-07‘After‘the‘rope‘is‘broken 2004-3-24