Number of crests seen to be emitted in 1 second by observers (located at every point) on a platform = \( \frac{1}{5/3} \). Number of crests emitted in 1 sec as seen by observers on the spaceship.

First crest emitted at \( t_0 \).

Last crest emitted at \( t_0 + \Delta t \), but the source is \( \frac{4}{5} c \Delta t \) farther away.

\[
f = f_0 \frac{3/5}{1 + 4/5}
\]