Problem of the Week Problem A Tapping to Success

For their dance unit, Yelena, Jackson, and Todd had to come up with a 30 second dance routine. All three of them are tap dancers, so they decided that each of them would do a 5 second solo tap, and the remaining 15 seconds would be a group tap.

During Yelena's solo tap section, she tapped at a rate of 5 taps per second.

During Jackson's solo tap section, he tapped at a rate of 4 taps per second.

During Todd's solo tap section, he tapped at a rate of 3 taps per second.

For their group tap section, they all tapped at the slowest rate so that they could all keep up.

How many taps did each dancer do in total during the full routine?

