15.33

- **(a)** $10240 = \binom{10}{1} * \binom{4}{1} * \binom{4}{1} * \binom{4}{1} * \binom{4}{1} * \binom{4}{1}$

  There are total 10 sequence, every card has 4 suits.

- **(b)** $617760 = \binom{4}{1} * \binom{13}{5} * 5!$

  There are 4 suits totally, so choose one of them, each card number in an exact suit has one. And there are totally 13 cards with different numbers.

- **(c)** $40 = \binom{10}{1} * \binom{4}{1}$

  There are total 10 sequence, and 4 suits.

- **(d)** $10200 = 10240 - \binom{10}{1} * \binom{4}{1}$

  According to (a), there are 10240 sequence, and there are 40 matching suits for these sequences as (c).

- **(e)** $617720 = 617760 - 40$

  According to (b) there are 617760 matching suit, and both a sequence and a matching suit which is a straight flush is 40, according to (c).