Probability

1. During the lockdown period, many families got bored of watching TV all the time. Out of these families, one family of 6 members decided to play a card game. 17 cards numbered $1, 2, 3, 4, ..., 17$ are put in a box and mixed thoroughly. One card is drawn by one member at random and other family members bet for the chances of drawing the number either prime, odd or even etc. Based on the above, answer the following questions :

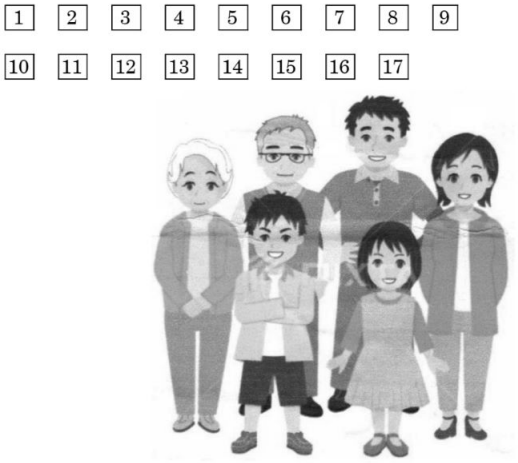

Figure 1: family of 6 members

   (i) The first member of the family draws a card at random and another bets that it is an even prime number. What is the probability of his winning the bet ?
      (A) $\frac{2}{17}$
      (B) $\frac{3}{17}$
      (C) $\frac{1}{17}$
      (D) $\frac{4}{17}$

   (ii) The second number of the family draws a card at random and some other member bets that it is an even number. What is the probability of his winning the bet ?
      (A) $\frac{7}{17}$
      (B) $\frac{8}{17}$
      (C) $\frac{9}{17}$

(D) $\frac{10}{17}$

(iii) What is the probability that the number on the card drawn at random is divisible by 5 ?

(A) $\frac{5}{17}$
(B) $\frac{4}{17}$
(C) $\frac{3}{17}$
(D) $\frac{2}{17}$

(iv) What is the probability that the number on the card drawn at random is a multiple of 3 ?

(A) $\frac{5}{17}$
(B) $\frac{6}{17}$
(C) $\frac{7}{17}$
(D) $\frac{8}{17}$

(v) What is the probability that the number on the card is a factor of 9 ?

(A) $\frac{9}{17}$
(B) $\frac{3}{17}$
(C) $\frac{8}{17}$
(D) $\frac{1}{17}$