1. Three coins are tossed once, find the probability of getting at least one head \( \frac{7}{8} \)
2. Three coins are tossed simultaneously 200 times with the following frequencies of different Outcomes:

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Heads</td>
<td>23</td>
</tr>
<tr>
<td>2 Heads</td>
<td>72</td>
</tr>
<tr>
<td>1 Head</td>
<td>77</td>
</tr>
<tr>
<td>No head</td>
<td>28</td>
</tr>
</tbody>
</table>

Find the probability of getting:
- a) 2 Heads \( \frac{9}{25} \)
- b) at least 2 Heads \( \frac{19}{40} \)

3. A dice is thrown once, find the probability of getting a prime number \( \frac{1}{2} \)
4. A dice is thrown once. Find the probability of getting:
   - a) An even number \( \frac{1}{2} \)
   - b) A prime number \( \frac{1}{2} \)
   - c) A number greater than 4 \( \frac{1}{3} \)

5. A fair die is tossed once. Find the probability of getting:
   - a) a number more than or equal to 3 \( \frac{2}{3} \)
   - b) a multiple of 3 \( \frac{1}{3} \)

6. A letter of English alphabet is chosen at random. Calculate the probability that the letter chosen is a vowel \( \frac{5}{26} \)
7. A bag contains 15 balls numbered 1 to 15. Find the probability of drawing a prime number, When one ball is drawn from the bag at random \( \frac{2}{5} \)
8. Marks obtained by 50 students in a class test of 100 marks are given below:

<table>
<thead>
<tr>
<th>Marks</th>
<th>0 - 25</th>
<th>25 - 50</th>
<th>50 – 75</th>
<th>75 - 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of students</td>
<td>4</td>
<td>12</td>
<td>18</td>
<td>16</td>
</tr>
</tbody>
</table>

Find the probability that a student obtained less than 50% marks \( \frac{8}{25} \)
9. In a one day international cricket match, a batsman played 40 balls. The runs scored as Follows:

<table>
<thead>
<tr>
<th>Runs scored</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of balls</td>
<td>13</td>
<td>15</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

Find the probability that the batsmen will score:
   - a) 6 runs \( \frac{1}{20} \)
   - b) A four or a six run \( \frac{3}{20} \)

10. One number is chosen at random from numbers 1 to 100. Find the probability that it is divisible by 4 or 6 \( \frac{33}{100} \)
11. In a survey of 80 people, 60 people like apple juice and remaining dislike it. Find the Probability that people dislike apple juice \( \frac{1}{4} \)
12. 250 families with 2 children are selected randomly and following data were obtained:

<table>
<thead>
<tr>
<th>Number of sons in family</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of families</td>
<td>75</td>
<td>125</td>
<td>50</td>
</tr>
</tbody>
</table>

Find the probability of families having:
   - a) 2 sons \( \frac{3}{10} \)
   - b) 1 son \( \frac{1}{2} \)
   - c) no son \( \frac{1}{5} \)
13. 1500 family with 2 children were selected randomly and the following data was recorded:

<table>
<thead>
<tr>
<th>Number of girls in family</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of family</td>
<td>475</td>
<td>814</td>
<td>211</td>
</tr>
</tbody>
</table>

Compute probability of a family chosen at random having

a) At most 1 girl
b) At least 2 girls

14. Probability of an impossible event is always...........
   a) 0  b) 1  c) 2  d) ½

15. A die is thrown once. The probability of getting an even prime number is
   a) ½  b) 1/3  c) 1/6  d) 2/3

16. A coin is tossed once then probability of getting head is
   a) 2  b) 1  c) ½  d) 3

17. There are 10 bulbs in a bag in which 4 bulbs are good and rest are fused, then the
   Probability of fused bulbs is
   a) 3/5  b) 2/5  c) 1  d) 2/3

18. Sum of the probability of happening and not happening of an event is
   a) 1  b) 2  c) 0  d) none of these

19. The probability of winning a game is 0.3. Then, the probability of losing a game is
   a) 0.3  b) 0.7  c) 0.6  d) 0.1

20. The Probability of a sure event is
   a) 1  b) – 1  c) 0  d) none of these

21. Out of 35 students participating in a debate 10 are girls. The probability that winner is a boy is :
   a) 1/7  b) 3/7  c) 4/7  d) 5/7

22. Which of the following cannot be the probability of an event
   a) 1/5  b) 0.3  c) 4%  d) 5/4

23. In a cricket match, a batsman hits a sixer 8 times out of 32 balls played. The probability that a sixer is not hit in a ball is :
   a) 0.75  b) 0.25  c) –0.25  d) 0.5

PREPARED BY MAHABOOB PASHA : IX – X BOYS