

Answer the following questions.

1	<p>A box has 10 red balls, 5 green balls and 8 yellow balls. If one ball was picked at random (without looking into the box), what is the probability that it is</p> <p>a) a red ball (in fraction)?                      b) a red ball (in decimal correct to 2 places)?                      c) a green ball (in fraction)?                      d) a green ball (in decimal correct to 2 places)?                      e) a yellow ball (in fraction)?                      f) a yellow ball (in decimal correct to 2 places)?                      g) a blue ball (in fraction)?                      h) a purple ball (in decimal)?</p>	
2	<p>Numbers 1 to 100 are written in papers and put in a bag. A number is drawn at random. Find the percentage chance that the number picked is</p> <p>a) divisible by 10                      b) divisible by 5                      c) less than 10                      d) greater than 10                      e) greater than 85                      f) a number containing the digit 3</p>	
3	<p>A box has 9 blue balls, 7 red balls, 3 green balls, 4 white balls and 6 pink balls. If a ball is selected at random, find the probability (as a fraction) that the box picked is</p> <p>a) blue?                      b) red?                      c) green?                      d) white?                      e) pink?                      f) blue or red?                      g) not red?                      h) white or green?                      i) green, red or white?                      j) white or pink?                      k) neither blue nor red nor green nor white nor pink?</p>	

## MATHS WORKSHEETS –PROBABILITY– THEORETICAL PROBABILITY

4	<p>A spinner has equal chance of landing on numbers 1,2,3,4 and 5. What is the probability (as a percentage) that the spinner lands on</p> <p>a) 3?                  b) 2?                  c) 5?                  d) an odd number?                  e) an even number?                  f) a number greater than 2?                  g) a number less than 4?                  h) a number less than 3?</p>	
5	What are the sample space of tossing a coin?	
6	What are the sample space of tossing a die?	
7	The set of all possible outcomes of the given experiment is called as	
8	Single outcome of an experiment is called as	
9	The probability of an event that is certain (Certain Event)	
10	The probability of any event is always ranges from	
11	The probability of all the events in a sample space adds up to	
12	Give some examples of experiment	
13	The event which cannot happen is called as	
14	Two events are said to be _____ when one event occurs if and only if the other does not.	
15	The probabilities of two complimentary events add up to	
16	A bag contains 3 red, 8 blue and 6 pink balls. If a ball is drawn at random, find the probability (in fraction) that it is not red?	

**Answer Key:**

1	Total balls: 23 a) $10/23$ b) 0.43 c) $5/23$ d) 0.22 e) $8/23$ f) 0.35 g) 0 h) 0
2	Total numbers: 100 a) Numbers: 10,20, 30....100 $10/100 = 10\%$ b) Numbers: 5,10, 15, 20...100 $20/100 = 20\%$ c) 1,2,3....9 $9/100 = 9\%$ d) 11,12,13...100 $90/100 = 90\%$ e) 86, 87, 88....100 $15/100 = 15\%$ f) 3, 13, 23, 33,43, 53, 63, 73, 83,93, 30, 31, 32, 34, 35, 36, 37, 38, 39 $19/100 = 19\%$
3	Total balls: 29 a) $9/29$ b) $7/29$ c) $3/29$ d) $4/29$ e) $6/29$ f) $16/29$ g) $20/29$ h) $7/29$ i) $14/29$ j) $10/29$ k) 0
4	a) $1/5 * 100 = 20\%$ b) $1/5 * 100 = 20\%$ c) $1/5 * 100 = 20\%$ d) Numbers: 1,3,5 $3/5 * 100 = 60\%$

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	e) Numbers: 2,4 $2/5 * 100 = 40\%$ f) Numbers= 3,4,5 $3/5 * 100 = 60\%$ g) Numbers= 1,2,3 $3/5 * 100 = 60\%$ h) 1,2 $2/5 * 100 = 40\%$
5	$S = \{H, T\}$
6	$S = \{1,2,3,4,5,6\}$
7	Sample space
8	Event
9	one
10	Zero to one
11	One
12	a) tossing a coin b) throwing a die c) selecting a card from a deck of cards
13	Impossible event
14	complimentary
15	1
16	Total: 17 Not red: $8 + 6 = 14$ Not red= $14/17$