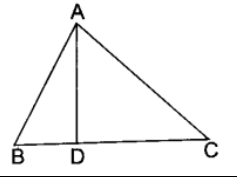
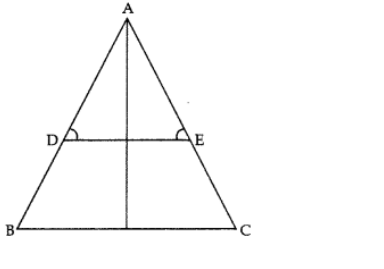
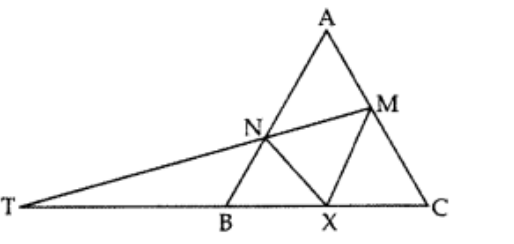
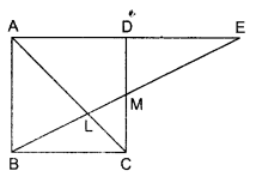


BCM SCHOOL, BASANT AVENUE, DUGRI ROAD, LUDHIANA
CLASS -X (MATHEMATICS)
Assignment 1(Triangles and Probability)

1.	<p>In the given figure, $\angle BAC = 90^\circ$ and $AD \perp BC$. A. Then</p> <p>(a) $BD \cdot CD = BC^2$ (b) $AB \cdot AC = BC$ (c) $BD \cdot CD = AD^2$ (d) $AB \cdot AC = AD^2$</p>	
2.	<p>An event is very unlikely to happen. Its probability is closest to:</p> <p>(a) 0.0001 (b) 0.001 (c) 0.01 (d) 0.1</p>	
3.	<p>The letters of the word SOCIETY are placed at random in a row. The probability of getting a vowel is</p> <p>(a) $1/7$ (b) $2/7$ (c) $3/7$ (d) $4/7$</p>	
4.	<p>Assertion: The probability of getting a bad egg in a lot of 400 is 0.035. The number of bad eggs in the lot is 14. Reason: . If the probability of an event is p, the probability of its complementary event will be 1-p.</p> <p>a) Both Assertion and Reason are correct and reason is correct explanation for the. b) Both Assertion and Reason are false but reason is not correct explanation for assertion. c) Assertion is correct but reason is false. d) Both Assertion and reason are false.</p>	
5.	<p>In the fig., $\angle D = \angle E$ and $AD/DB = AE/EC$. Prove that $\triangle BAC$ is an isosceles triangle</p>	
6.	<p>Any point X is taken on the side BC of a triangle ABC and XM, XN are drawn parallel to BA, CA meeting CA, BA at M and N respectively. MN meets BC produced in T. Prove that: $TX^2 = TB \times TC$.</p>	
7.	<p>In figure, M is mid-point of side CD of a parallelogram ABCD. The line BM is drawn intersecting AC at L and AD produced at E. Prove that $EL = 2BL$.</p>	
8.	<p>Case study: Rohit wants to distribute chocolates in his class on his birthday. The chocolates are of three types: Milk chocolate, White chocolate and Dark chocolate. If the total number of students in the class is 54 and everyone gets a chocolate, then answer the following questions. Based on the above information answer the following question:</p> <p>(a) If the probability of distributing milk chocolates is $1/3$, then find the number of milk chocolates with Rohit. (b) If the probability of distributing dark chocolates is $4/9$, then find the number of dark chocolates Rohit has. (c) Find the probability of distributing white chocolates.</p>	