MATHS

BOOKS - CBSE MODEL PAPER

SAMPLE PAPER (MATHEMATICS STANDARD)

Part A

1. If xy=180 and HCF(x,y)=3, then find the LCM(x,y).

The decimal representation of $\dfrac{14587}{2^1 \times 5^4}$ will terminate after how many places?

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2. If the sum of the zeroes of the quadratic polynomial $3x^2 - kx + 6$ is 3 ,then find the value of K.

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3. For what value of k, the pair of linear equations $3x+y=3$ and $6x+ky=8$ does not have solution.

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4. If 3 chairs and 1 table costs Rs. 1500 and 6 chairs and 1 table costs Rs.2400. Form linear equations to represent this situation.

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5. Which term of the A.P. 27, 24, 21,.....is zero?

A. 9th

B. 7th

C. 6th

D. 10th

Answer: D

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6. If the equation $9x^2 + 6kx + 4 = 0$ has equal roots then k=?

7. Find the roots of the equation $x^2+7x+10=0$

OR

For what value(s) of 'a' quadratic equation 30 ax^2-6x+1=0 has no real roots?

8. If PQ=28cm, then find the perimeter of $\triangle$PLM
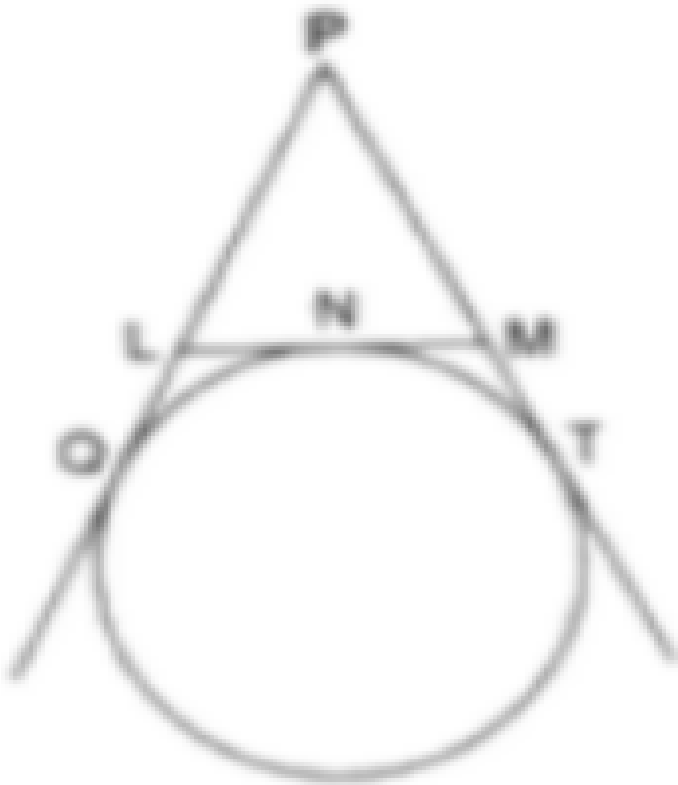
9. If two tangents are inclined at $60°$ are drawn to a circle of radius 3cm then find length of each tangent.

OR

PQ is a tangent to a circle with centre O at point P. If $\triangle OPQ$ is an isosceles triangle, then find $\angle OQP$.
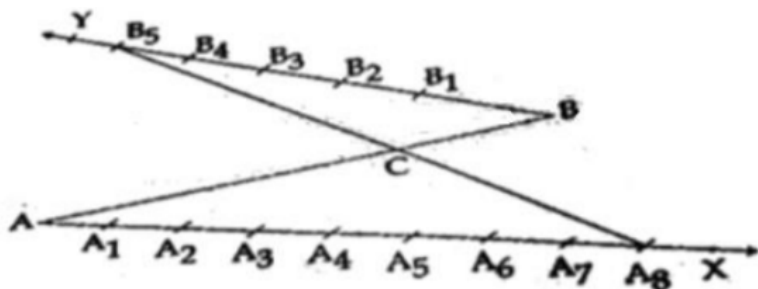
10. In the $\triangle ABC$, D and E are points on side AB and AC respectively such that DE ‖ BC. If AE=2cm, AD=3cm and BD=4.5cm, then find CE.

11. In the figure, if B1, B2, B3,...... and A1,A2, A3,..... have been marked at equal distances. In what ratio C divides AB?

A. $8 : 5$

B.

C.

D.

Answer:

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12. $\sin A + \cos B = 1$, $A = 30°$ and B is an

acute angle ,then find the value of B.

A. $30°$

B. $45°$

C. $60°$

D. $0°$

Answer: C

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13. If $x = 2\sin^2\theta$ and $y = 2\cos^2\theta + 1$,then find $x + y$

A. 3

B. 1

C. 2

D. 0

Answer: A

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14. In a circle of diameter 42cm,if an arc subtends an angle of $60°$ at the centre where $\prod$ =22/7, then what will be the length of arc.

15. Find the probability of getting a doublet in a throw of a pair of dice.

OR

Find the probability of getting a black queen when a card is drawn at random from a well-shuffled pack of 52 cards