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Class 11

2023-24

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A COLLECTION OF

COMPULSORY QUESTIONS

SUBJECT:

MATH

MR. SS PRITHVI

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Getting in:

- **It gives me great pride and pleasure in bringing to you, this wonderful booklet.**
- **The compulsory questions are collected from almost all the available previous years' question papers, which will give an idea about to study the topics which will help them to tackle these compulsory questions.**

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FIRST MID TERM

1	Eliminate θ from $a\cos\theta = b$ and $c\sin\theta = d$, where a, b, c, d are constants.
2	Solve $2x^2+x-15 \leq 0$.
3	Find the number of subsets of A if $A = \{x : x = 4n+1, 2 \leq n \leq 5, n \in N\}$.
4	Show that the relation $xy = -2$ is a function for a suitable domain. Find the domain and the range of the function.
5	If P(A) denotes the power set of A, then find $n(P(P(P(\phi))))$
6	Write $f(x) = x^2+5x+4$ in completed square form.

7	If n (A) = 10 and n (A∩B) = 3 , find $n\left((A\cap B)'\cap A\right)$
8	Find the range : $\frac{1}{2\cos x-1}$.
9	Let f and g be the two functions from R to R defined by f (x) = 3x − 4 and g(x) = x^2 + 3 . Find gof and fog.
10	If n(A ∩ B) = 3 and n(AUB) = 10, then find n(P (A Δ B))
	PART – III
11	Prove $\log\frac{a^2}{bc}+\log\frac{b^2}{ca}+\log\frac{c^2}{ab}=0$
12	Find the number of solutions of $x^2+\|x-1\|=1$
13	Find the value of sin 690°.
14	Find all values of x that satisfies the inequality $\frac{2x+3}{(x+2)(x+4)}<0$
15	Find the domain of $\frac{1}{1-2\sin x}$
16	If $x=\sqrt{2}+\sqrt{3}$ find $\frac{x^2+1}{x^2-2}$

17	Compute $\log_9 27 - \log_{27} 9$.
18	Let f and g be two functions from R to R denfined by f(x) = 3x - 4 and g (x) = x^2+ 3. find gof, fog.
19	Solve: $\frac{x+1}{x+3} < 3$.
20	If A = 30° then find the value of $2\sin^2 A + \cos 2A$.

QUARTERLY

1	Compute 9^7.
2	Find the last two digits of the number 3^{600}.
3	Find the rank of the word "SCHOOL".
4	If $f(x) = y = \frac{ax-b}{cx-a}$, then prove that f(y) = x.
5	Find the value of $\frac{1}{\log_x(yz)+1} + \frac{1}{\log_y(zx)+1} + \frac{1}{\log_z(xy)+1}$.
6	Find the value of n if $\frac{1}{8!} + \frac{1}{9!} = \frac{n}{10!}$

7	Prove that the equation to the straight lines through the origin, each of which makes an angle α with the straight line $y = x$ is $x^2 - 2xy \sec\alpha + y^2 = 0$.
8	Resolve into partial fractions: $\frac{3x+1}{(x-2)(x+1)}$.
9	Find the value of sin 2θ, when $\sin\theta = \frac{12}{13}$, θ lies in the first quadrant.
10	Find the locus of a point P moves such that its distances from two fixed points A(1, 0) and B(5, 0) are always equal.
11	Find the equations of a parallel line and perpendicular line passing through the point (1, 2) to the line $3x + 4y = 7$
12	Solve : $\|5x - 12\| < -2$
13	Find the number of subsets of A if $A = \{x : x = 4n+1, 2 \leq n \leq 5, n \in N\}$
14	If $\frac{1}{7!} + \frac{1}{9!} = \frac{A}{10!}$, find A.
15	If in two circles, arcs of the same length subtend angles 60° and 75° at the centre, Find the ratio of their radii.
16	Express the equation $\sqrt{3}x - y + 4 = 0$ in the slope - intercept form.
17	Prove that $\cot(A + B) = \frac{\cot A \cot B - 1}{\cot A + \cot B}$

18	Find the general solution of $\sin\theta = \frac{-\sqrt{3}}{2}$.
19	The slope of one of the lines $ax^2 + 2hxy + by^2 = 0$ is three times the other. Show that $3h^2 = 4ab$.
20	In how many ways the letters of the word PENCIL be arranged so that N is always next to E?
21	Prove that $\cos(A+B)\cos(A-B) = \cos^2 B - \sin^2 A$.
22	Find the equation of the straight lines passing through (8, 3) and having intercepts whose sum is 1.
23	Prove that $\cos(A+B)\cos(A-B) = \cos^2A - \sin^2B = \cos^2B - \sin^2A$.
24	Find the value of $\tan\frac{\pi}{12}$.
25	Prove that $n! + (n+1)! = n!(n+2)$.
26	Find the equation of the straight line passing through the points (1,1) and (5,8).
27	Write the identities of cos2A.
28	Find seven numbers $A_1;A_2;:::;A_7$ so that the sequence $4;A_1;A_2;:::;A_7;7$ is in arithmetic progression and also 4 numbers $G_1;G_2;G_3;G_4$ so that the sequence $12;G_1;G_2;G_3;G_4;38$ is in geometric progression.

29	**FIND THE DISTINCT PERMUTATIONS OF THE WORD "MISSISSIPPI".**
30	Find the value of $\cos 15^{\circ}$.

II-MID TERM

1	If A and B are square matrices of order 3 such that $\|A\| = -1$, $\|B\| = 3$ find the value of $\|3AB\|$
2	Find $(\vec{a}+3\vec{b}).(2\vec{a}-\vec{b})$ if $\vec{a} = \vec{i}+\vec{j}+2\vec{k}$ and $\vec{b} = 3\vec{i}+2\vec{j}-\vec{k}$
3	Find the area of the triangle whose vertices are $(-2,-3), (3,2), (-1,-8)$.
4	For any two vectors $\vec{a}$ and $\vec{b}$ prove that $\|\vec{a} \times \vec{b}\|^2 + (\vec{a}\cdot\vec{b})^2 = \|\vec{a}\|^2\|\vec{b}\|^2$
5	Find the angle between the vectors $5\hat{i}+3\hat{j}+4\hat{k}$ and $6\hat{i}+8\hat{j}+\hat{k}$.
6	Prove that $\lim_{x\to a}\frac{x^n - a^n}{x-a} = na^{n-1}$.
7	If f and g are continuous functions with $f(3) = 5$ and $\lim_{x\to 3}[2f(x) - g(x)] = 4$ find $g(3)$. (b)
8	Show that $\begin{vmatrix} x+2a & y+2b & z+2c \\ x & y & z \\ a & b & c \end{vmatrix} = 0$

9	Find the angle between the Vectors $5\hat{i}+3\hat{j}+4\hat{k}$ and $6\hat{i}-8\hat{j}-\hat{k}$
10	For what value of θ in $[0, 2\pi]$ such that matrix $\begin{vmatrix} 2\sin\theta-1 & \sin\theta & \cos\theta \\ \sin(\theta+\pi) & 2\cos\theta-\sqrt{3} & \tan\theta \\ \cos(\theta-\pi) & \tan(\pi-\theta) & 0 \end{vmatrix}$ is Skew symmetric. Also write down the Skew - symmetric matrix.
11	For any two vector $\bar{a}$ *and* $\bar{b}$, Prove that i) $\lvert\bar{a}+\bar{b}\rvert \le \lvert\bar{a}\rvert+\lvert\bar{b}\rvert$ and ii) $\lvert\bar{a}.\bar{b}\rvert \le \lvert\bar{a}\rvert\,\lvert\bar{b}\rvert$
12	Evaluate $\lim_{x\to 2^-}\lceil x\rceil$ and $\lim_{x\to 2^+}\lfloor x\rfloor$
13	Evaluate $\begin{vmatrix} 2014 & 2017 & 0 \\ 2020 & 2023 & 1 \\ 2023 & 2026 & 0 \end{vmatrix}$.
14	For any vector $\bar{r}$ prove that $\bar{r}=(\bar{r}.\hat{i})\hat{i}+(\bar{r}.\hat{j})\hat{j}+(\bar{r}.\hat{k})\hat{k}$. [MOST REPEATED]
15	$\lvert\vec{a}\rvert=5, \lvert\vec{b}\rvert=6, \lvert\vec{c}\rvert=7$ and $\vec{a}+\vec{b}+\vec{c}=\vec{0}$ then find the value of $\vec{a}.\vec{b}+\vec{b}.\vec{c}+\vec{c}.\vec{a}$
16	Evaluate: $\lim_{x\to 0}\frac{3^x-1}{\sqrt{1+x}-1}$
17	If $\bar{a}, \bar{b}$ and $\bar{c}$ are three unit vectors satisfying $\bar{a}-\sqrt{3}\bar{b}+\bar{c}=\bar{0}$ then find the angle between $\bar{a}$ and $\bar{c}$.
18	For any two vectors $\vec{a}$ and $\vec{b}$ prove that $\lvert\vec{a}\times\vec{b}\rvert^2+(\vec{a}.\vec{b})^2=\lvert\vec{a}\rvert^2\,\lvert\vec{b}\rvert^2$

19	Find the area of the triangle whose vertices are A(3, –1, 2) B(1, –1, –3) and C(4, –3, 1)

HALF - YEARLY

1	Find $f'(2)$ and $f'(4)$ if $f(x)=\|x-3\|$.
2	Solve : $\sqrt{3}\sin x+\cos x=2$.
3	Differentiate : y = x log x w.r.t x
4	A die is rolled. If it shows an odd number, find the probability of getting 5.
5	Integrate with respect to x : $(1+x^2)^{-1}$
6	If $y=1+\frac{x}{1!}+\frac{x^2}{2!}+\frac{x^3}{3!}+\ldots\ldots$, then prove that $\frac{dy}{dx}=y$.
7	Given that P(A)=0.52 , P(B)=0.43 and $P(A\cap B)=0.24$, find $P(A\cap \bar{B})$.
8	An integer is chosen at random from the first ten positive integers. Find the Probability that it is i) an even number ii) multiple of three .
9	If $y=\sqrt{\sin\sqrt{x}}$ find $\frac{dy}{dx}$.

10	Find the general solution of $\tan 4x = \cot 2x$.
11	Prove that $((A \cup B' \cup C) \cap (A \cap B' \cap C')) \cup ((A \cup B \cup C') \cap (B' \cap C')) = B' \cap C'$.
12	Integrate the following functions with respect to x : $\frac{1}{\sqrt{x+3}-\sqrt{x-4}}$
13	If A and B are mutually exclusive events then $P(A) = \frac{3}{8}$, $P(B) = \frac{1}{8}$, then find $P(\overline{A} \cup \overline{B})$.
14	A die is rolled. If it shows an even number, then find the probability of getting '6'.
15	Let f and g be the two functions from R to R defined by $f(x) = 3x - 4$ and $g(x) = x^2 + 3$. Find gof and fog.
16	Prove that the points whose position vectors $2\vec{i} + 4\vec{j} + 3\vec{k}$, $4\vec{i} + \vec{j} + 9\vec{k}$ and $10\vec{i} - \vec{j} + 6\vec{k}$ from a right angled triangle.
17	. The length of the perpendicular drawn from the origin to a line is 12 and makes an angle 30°with positive direction of the x-axis. Find the equation of the line.
18	. If the roots of the equation $(q-r)x^2 + (r-p)x + p-q = 0$ are equal, then show that p,q and rare in AP.
19	If A and B are independent then prove that $\bar{A}$ *and* $\bar{B}$ are also independent.
20	. In a ΔABC, if a = 12 cm, b = 8 cm and C = 30°, then show that its area is 24 sq.cm.

21	. Evaluate $\int \sqrt{4-x^2}dx$
22	Find the nearest point on the line $3x + 4y = 12$ from the origin.
23	Find the matrix A such that $\begin{bmatrix} 2 & -1 \\ 1 & 0 \\ -3 & 4 \end{bmatrix} A^T = \begin{bmatrix} -1 & -8 & -10 \\ 1 & 2 & -5 \\ 9 & 22 & 15 \end{bmatrix}$.
24	Prove that $\sqrt{5}$ is an irrational number.
25	Define Condition of perpendicular lines.
26	Calculate $\lim_{x \to 4} \frac{16-x^2}{4+x}$.
27	Prove that $\frac{d}{dx}(cot^{-1}x) = -\frac{1}{1+x^2}$.
28	Test the differentiability of the function $f(x) = \|x-2\|$ at $x = 2$.
29	. Define the Inclusion-Exclusion principle.
30	Show that $nC_r + nC_{r-1} = (n+1)C_r$
31	Find the distance between the parallel lines 3x−4y+5 = 0 and 6x−8y−15 = 0.
32	Differentiate: $x^y = y^x$

33	Do the limits of following function $\frac{x\lvert x\rvert}{Sin\lvert x\rvert}$ exist as $x \to 0$? State reasons for your answer.
34	Evaluate $\int \frac{dx}{x^2+2x+10}$
35	Find the complete set of values of a, for which the quadratic $x^2-ax+a+2 = 0$ has equal roots.
36	Rewrite $\sqrt{3}x + y + 4 = 0$ into normal form.
37	Evaluate $\int a^x e^x dx$
38	Find the derivations of $x = a(\cos t + t \sin t)$, $y = a(\sin t - t \cos t)$
39	Evaluate: $\int \sqrt{4 - x^2}\, dx$
40	) If ABCD is a quadrilateral and E and F are the mid points of AC and BD respectively then prove that $\overline{AB} + \overline{AD} + \overline{CB} + \overline{CD} = 4\overline{EF}$
41	. Compute $\lim_{x \to 1} \frac{\sqrt{x}-1}{x-1}$.
42	A problem in Mathematics is given to three students whose chances of solving it are $\frac{1}{3}, \frac{1}{4}$, and $\frac{1}{5}$ (i) What is the probability that the problem is solved? (ii) What is the probability that exactly one of them will solve it?

REVISION - EXAMS

1	Solve: $\sin^4 x = \sin^2 x$ for which the solutions lie in the internal $0 \le 0 \le 360°$
2	Evaluate: $\lim_{x \to 0} \frac{\sin x\,[1-\cos x]}{x^3}$
3	$\int \frac{1}{\cos^2 x} = ?$
4	Evaluate: $\int (x-3)\sqrt{x+2}\,dx$
5	Find the length of an arc of the circle of radius 5cm subtending a central angle measuring 15°.
6	If $(n+2)C_7 : (n-1)P_4 = 13:24$ find n.
7	Examine the differentiability of $f(x) = x^{1/3}$ at $x = 0$
8	Integrate the following with respect to x i) $x^2\cos x$ ii) $\sin^2 5x$
9	Integrate $\frac{e^x - e^{-x}}{e^x + e^{-x}}$ with respect to x.
10	Supposes a fair die is rolled. Find the probability of getting i) an even number ii) multiple of three.
11	Evaluate: $\int \frac{\log x}{(1+\log x)^2}\,dx$.

12	If two coins are tossed simultaneously, then find the probability of getting i) one head and one tail ii) at most two tails
13	If A and B are two independent events such that P(A) = 0.4 and P(A ∪ B) = 0.9. Find P(B)
14	Find the probability of getting the number 9, when a usual die is rolled.
15	Find the family of straight lines (I) parallel to (II) perpendicular to $4x-3y+24 = 0$
16	30) If for two events A and B, $P(A) = \frac{3}{4}$, $P(B) = \frac{2}{5}$ and $A \cup B = S$ (sample space), find the conditional probability P(A/B).
17	Find the integrals of the following : $\frac{1}{(x+1)^2-25}$
18	A die is rolled. If it shows an odd number, then find the probability of getting 5.
19	Show that $\begin{vmatrix} 0 & c & b^2 \\ c & 0 & a \\ b & a & 0 \end{vmatrix} = \begin{vmatrix} b^2+c^2 & ab & ac \\ ab & c^2+a^2 & bc \\ ac & bc & a^2+b^2 \end{vmatrix}$
20	Integrate with respect to x : $\frac{\sin^{-1} x}{\sqrt{1-x^2}}$
21	State and prove addition theorem on probability.
22	A railroad curve is to be laid out on a circle, what radius should be used if the track is to change direction by 25° in a distance of 40 metres?

23	Find the value of r, if $5P_r = 6P_{r-1}$
24	Find the equation of the line passing through the point (5, 2) and perpendicular to the line joining (2, 3) and (3, –1).
25	Justify the trueness of the statement : " An element of a set can never be a subset of itself."
26	The formula for converting from Fahrenheit to celsius temperature is $y = +\frac{5x}{9} - \frac{160}{9}$ Find the inverse of this function and determine whether the inverse is also a function.
27	Differentiate: $y = \tan(\cos x)$
28	Evaluate: $\lim_{x \to 0} \frac{\sqrt{1+x^2}-1}{x}$
29	Find the area of the parallelhagram whose adjacent sides are $\vec{a} = 3\vec{i} - 2\vec{j} + \vec{k}$ and $\vec{b} = \vec{i} - 2\vec{j} + 3\vec{k}$
30	Find the equation of a perpendicular line passing through the point (1,2) to the like $3x + 4y = 7$
31	A mobile phone has a passcode of 6 distinct digits. What is the maximum number of attempts one makes to retrieve the passcode?
32	Prove that $\log_{a^2} a \log_{b^2} b \log_{c^2} c = \frac{1}{8}$

33	If D is the midpoint of the side BC of a triangle ABC, prove that $\overrightarrow{AB}+\overrightarrow{AC}=2\overrightarrow{AD}$
34	Find $\frac{dy}{dx}$ if $x^4+x^2y^3-y^5=2x+1$.
35	If the letter of the word 'GOOGLE' are permuted in all possible ways and the strings this formed are arranged in the dictionary order, find the rank of the word GOOGLE.
36	Find the distance of the line $4x-y=0$ from the point $(4,1)$ measured along the straight line making an angle of 135^{O} with the positive direction of the x - axis.
37	Show that $(\vec{a}-\vec{b})\times(\vec{a}+\vec{b})=2(\vec{a}\times\vec{b})$
38	If $\begin{vmatrix} 1 & \sin\theta & 1 \\ -\sin\theta & 1 & \sin\theta \\ -1 & -\sin\theta & 1 \end{vmatrix}=3$ then find all solutions of θ. Here $0\le\theta\le 2\pi$
39	If $f(t)=4\sec t+\tan t$ then find $g'(t)$.
40	Evaluate: $\lim_{n\to\infty}\left[6^n+5^n\right]^{1/n}$
41	Find the matrix A which satisfies the matrix relation $A\begin{bmatrix}1&2&3\\4&5&6\end{bmatrix}=\begin{bmatrix}-7&-8&-9\\2&4&6\end{bmatrix}$.

42	Determine 3B + 4C – D if B, C and D are given by $B=\begin{bmatrix}2 & 3 & 0\\ 1 & -1 & 5\end{bmatrix}$, $C=\begin{bmatrix}-1 & -2 & 3\\ -1 & 0 & 2\end{bmatrix}$, $D=\begin{bmatrix}0 & 4 & -1\\ 5 & 6 & -5\end{bmatrix}$
43	If $y = a^{(\sin^{-1}x)^2}$, find $\frac{dy}{dx}$
44	If $f(x)=\frac{4x+3}{6x-4}$, $x \neq \frac{2}{3}$, show that (fof) (x) = x, what is the inverse of f.
45	If $y=\left(x+\sqrt{1+x^2}\right)^n$, then prove that $\left(1+x^2\right)\frac{d^2y}{dx^2}+x\frac{dy}{dx}=n^2y$
46	If $\Delta=\begin{vmatrix}x-2 & 2x-3 & 3x-4\\ 2x-3 & 3x-4 & 4x-5\\ 3x-5 & 5x-8 & 10x-17\end{vmatrix}=Ax^3+Bx^2+Cx+D$, then find B + C

Prove that $\log_4 2 - \log_8 2 + \log_{16} 2 - \cdots = 1 - \log_e 2$.

In a ΔABC, if $\tan\frac{A}{2} = \frac{5}{6}$ and $\tan\frac{C}{2} = \frac{2}{5}$, then show that a, b, c are in A.P.

If $A = \begin{bmatrix} 4 & 2 \\ -1 & x \end{bmatrix}$ and $(A - 2I)(A - 3I) = O$, find the value of x.

Evaluate : $\lim_{x \to 0} \frac{\sqrt{x+2} - \sqrt{2}}{x}$.

Compute: 9^7

Find the last two digits of the number: 3^{600}

If $f(x) = y = \frac{ax - b}{cx - a}$, then prove that $f(y) = x$.

Find the value of $\frac{1}{\log_x(yz) + 1} + \frac{1}{\log_y(zx) + 1} + \frac{1}{\log_z(xy) + 1}$.

Find $f'(2)$ and $f'(4)$ if $f(x) = |x - 3|$.

Solve : $\sqrt{3}\sin x + \cos x = 2$.

Find $f'(x)$, if $f(x) = \sin|x|$, by removing the modulus sign.

Verify the continuity at the point $x=0$ for the function $f(x)=\begin{cases}\frac{\sin 3x}{x}+1 & \text{if } x\neq 0\\ 2 & \text{if } x=0\end{cases}$

Is it correct to say $A\times A=\{(a, a) : a \in A\}$? Justify your answer.

Construct a suitable domain X such that $f : X \to N$ defined by $f(n)=n+3$ to be one to one and onto.

Find dy/dx if $x^2+y^2=1$.

Evaluate : $\int\left[\frac{12}{(4x-5)^3}+\frac{6}{3x+2}+16e^{4x+3}\right]dx$.

Differentiate x^x with respect to x.

If $a\sin^2\theta + b\cos^2\theta = c$, show that $\tan^2\theta=\frac{c-b}{a-c}$.

Evaluate : $\lim_{x\to 1}\frac{(x+x^2+x^3+...+x^n)-n}{x-1}$

If $y=\tan^{-1}\left(\frac{1-x^2}{1+x^2}\right)$ find y'.

If $\vec{a}=\hat{i}+2\hat{j}+3\hat{k}$, $\vec{b}=-3\hat{i}+4\hat{j}-5\hat{k}$ then find the value of $\vec{a}\cdot\vec{b}$.

Differentiate $y=\tan^2 4x$ with respect to x.

Find the equation of the line passing through the point (5, 2) and perpendicular to the line joining (2, 3) and (3, −1).

A committee of 7 has to be formed from 9 men and 4 women. In how many ways can this be done when the committee consists exactly 3 women?

Integrate $(x-11)^7$ with respect to x.

A die is rolled. If it shows an even number, then find the probability of getting 6.

Integrate $\cos 3x$ with respect to x.

Find the distinct permutation of the letters of the word MATHEMATICS.

Evaluate : $\lim_{n\to\infty} \left[6^n + 5^n\right]^{\frac{1}{n}}$

If ${}^nC_{r-1} = 36$, ${}^nC_r = 84$ and ${}^nC_{r+1} = 126$ then find the value of r.

If $y = e^{\sin x}$, find dy/dx.

Find the value of tan 165°.

Find the value of: cosec (-1410°).

Solve $2x^2+x-15 \leq 0$.

Find the number of subsets of A if A = {x:x = 4n+1, 2≤n≤5, n∈N}.

Show that the relation xy = −2 is a function for a suitable domain. Find the domain and the range of the function.

If $\mathscr{P}(A)$ denotes the power set of A, then find $n(\mathscr{P}(\mathscr{P}(\mathscr{P}(\emptyset))))$.

Write $f(x) = x^2+5x+4$ in completed square form.

Given that P(A)=0.52 , P(B)=0.43 and $P(A \cap B)=0.24$, find $P(A \cap \bar{B})$.

An integer is chosen at random from the first ten positive integers.Find the Probability that it is i) an even number ii) multiple of three .

If $y=\sqrt{\sin\sqrt{x}}$ find $\frac{dy}{dx}$.

Find the general solution of tan4x = cot 2x.

Prove that $((A \cup B' \cup C) \cap (A \cap B' \cap C')) \cup ((A \cup B \cup C') \cap (B' \cap C')) = B' \cap C'$.

Integrate the following functions with respect to x : $\frac{1}{\sqrt{x+3}-\sqrt{x-4}}$

A single card is drawn from a pack of 52 cards. What is the probability that the card is an Ace are King.

(Playing cards based sums deleted acc. To the 2023-24 academic years' portion.)

If A and B are mutually exclusive events then $P(A)=\frac{3}{8}$, $P(B)=\frac{1}{8}$, then find $P(\bar{A} \cup \bar{B})$.

Consider the function $f(x)=\sqrt{x}$, $x>0$. Does $\lim_{x \to 0} f(x)$ exist?

Prove that the points whose position vectors $2\vec{i}+4\vec{j}+3\vec{k}$, $4\vec{i}+\vec{j}+9\vec{k}$ and $10\vec{i}-\vec{j}+6\vec{k}$ from a right angled triangle.

Find the distance between the parallel lines 3x−4y+5 = 0 and 6x−8y−15 = 0.

Differentiate: $x^y=y^x$

WITH REGARDS,
SS PRITHVI,
PRIT EDUCATION.