|  |  | artment of <br>  hematics . | INDIAN SCHOOL AL WADI AL KABIR <br> Class X, Mathematics <br> Worksheet- Pair of Linear Equations in Two Variables $04-04-2024$ |  |  |  |  |  |
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| $\begin{aligned} & \text { Q. } \\ & \text { No. } \end{aligned}$ | Questions of 1 Mark each. (MCQ's) |  |  |  |  |  |  |  |
| 1. | Of equations $2 \mathrm{x}-\mathrm{y}=0$ and $2 \mathrm{y}-\mathrm{x}=0$ has: |  |  |  |  |  |  |  |
|  | A | Infinitely many solutions | B | A unique solution | C | Two solutions | D | No solutions |
| 2. | Graphically, the pair of equations $6 x-3 y+10=0$ and $2 x-y+9=0$ represents two lines which are: |  |  |  |  |  |  |  |
|  | A | intersecting at exactly one point | B | intersecting at exactly two points. | C | coincident | D | parallel |
| 3. | The pair of equations $\mathrm{x}=\mathrm{a}$ and $\mathrm{y}=\mathrm{b}$ graphically represents lines which are: |  |  |  |  |  |  |  |
|  | A | parallel | B | intersecting at $(\mathrm{a}, \mathrm{~b})$ | C | coincident | D | intersecting at $(b, a)$ |
| 4. | One equation of a pair of dependent linear equations is $-5 x+7 y=2$. The second equation can be: |  |  |  |  |  |  |  |
|  | A | $10 x-14 y=-4$ | B | $-10 x-14 y+4=0$ | C | $-10 x+14 y+4=0$ | D | $10 x+14 y+4=0$ |
| 5. | If the lines given by $3 x+2 k y=2$ and $2 x+5 y+1=0$ are parallel, then the value of $k$ is: |  |  |  |  |  |  |  |
|  | A | $\frac{-5}{4}$ | B | $\frac{2}{5}$ | C | $\frac{15}{4}$ | D | $\frac{3}{2}$ |
| 6. | The value of $c$ for which the pair of equations $c x-y=2$ and $6 x-2 y=4$ will have infinitely many solutions is: |  |  |  |  |  |  |  |
|  | A | 3 | B | -3 | C | 12 | D | No value |
| 7. | The graph of $x=3$ is a line parallel to: |  |  |  |  |  |  |  |
|  | A | x - axis | B | $y$-axis | C | both axes | D | none of these |
| 8.7 The value of $x$ and $y$ satisfying the 2 equations $32 x+33 y=34,33 x+32 y=31$ respectively are: |  |  |  |  |  |  |  |  |
|  | A | -1,2 | B | -1, 4 | C | 1, -2 | D | -1, -4 |


| 9. | On solving the following pair of linear equations: $2 \mathrm{x}-\mathrm{y}=2 ; 5 \mathrm{x}+2 \mathrm{y}=14$, the values of x and y are: |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | $(-2,4)$ | B | (2, 2) | C | $(2,4)$ | D | (2, -4) |
| 10. | Two lines are given to be parallel. The equation of one of the lines is $3 x-2 y=5$. The equation of the second line can be: |  |  |  |  |  |  |  |
|  | A | $9 x+8 y=7$ | B | $-12 x-8 y=7$ | C | $-12 x+8 y=7$ | D | $12 \mathrm{x}+8 \mathrm{y}=7$ |
| 11. | The lines represented by linear equations $y=x$ and $x=4$ intersect at $P$. The coordinates of the point $P$ are: |  |  |  |  |  |  |  |
|  | A | $(4,0)$ | B | $(-4,4)$ | C | $(0,4)$ | D | $(4,4)$ |
| 12. | If $31 x+43 y=117$ and $43 x+31 y=105$, then value of $x-y$ is: |  |  |  |  |  |  |  |
|  | A | -1 | B | $\frac{1}{3}$ | C | 3 | D | $\frac{-1}{3}$ |
| 13. | The pair of linear equations $k x+2 y=3$ and $3 x+6 y=10$ have a unique solution if: |  |  |  |  |  |  |  |
|  | A | $\mathrm{k}=9$ | B | $\mathrm{k}=1$ | C | $\mathrm{k}=1$ | D | $\mathrm{k} \neq 9$ |
|  | DIRECTION: In the following questions, a statement of assertion (A) is followed by statement of Reason (R). Choose the correct option |  |  |  |  |  |  |  |
|  | (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A) <br> (b) Both assertion (A) and reason (R) are true and reason $(\mathrm{R})$ is not the correct explanation of assertion <br> (A) <br> (c) Assertion (A) is true but reason (R) is false. <br> (d) Assertion (A) is false but reason (R) is true. |  |  |  |  |  |  |  |
| 14. | Assertion: The pair of linear equations $x-2 y-3=0$ and $3 x+4 y-20=0$ have exactly one solution. <br> Reason: The pair of linear equations $2 x+3 y-9=0$ and $4 x+6 y-18=0$ have a unique solution |  |  |  |  |  |  |  |
| 15. | Assertion: The value of $k$ for which the system of linear equations $3 x-4 y=7$ and $6 x-8 y=k$, has infinite number of solutions is 14 . <br> Reason: The graph of linear equations $a_{1} \mathrm{x}+b_{1} \mathrm{y}+c_{1}=0$ and $a_{2} \mathrm{x}+b_{2} \mathrm{y}+c_{2}=0$ gives a pair of coincident lines if $\frac{a_{1}}{a_{2}}=\frac{b_{1}}{b_{2}}=\frac{c_{1}}{c_{2}}$ |  |  |  |  |  |  |  |


| Answers |  |  |  |  |  |  |  |  |
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|  | 1 | B | 2 | D | 3 | B | 4 | A |

