Mathematics Homework Assignment

Solve the following problems carefully. Show all your work and write your final answers clearly.

Ensure to follow the methods learned in class.

1. Solving Linear Systems by Substitution

1. Solve the system using substitution:

$2x + y = 8$

$x - y = 1$

2. Solve the system using substitution:

$x + 2y = 7$

$3x - y = 7$

3. Solve the system using substitution:

$5x - 2y = 11$

$x + y = 5$

4. Solve the system using substitution:

$4x + 3y = 18$

$2x - y = 4$

5. Solve the system using substitution:

$x - 3y = -5$

$2x + y = 8$

6. Solve the system using substitution:

$6x - y = 16$

$x + 2y = 7$

7. Solve the system using substitution:

$3x + 2y = 13$

$x - y = 1$

8. Solve the system using substitution:

$7x - 3y = 15$

$x + 4y = 11$

9. Solve the system using substitution:

$5x + y = 17$

$2x - y = 4$

10. Solve the system using substitution:

4x - 2y = 10

x + y = 5

2. Solving Linear Systems by Elimination

11. Solve the system using elimination:

3x + 2y = 13

2x - y = 4

12. Solve the system using elimination:

4x - y = 11

5x + 2y = 19

13. Solve the system using elimination:

6x + y = 20

3x - 2y = 3

14. Solve the system using elimination:

x + y = 5

2x - 3y = 0

15. Solve the system using elimination:

7x - 2y = 17

3x + y = 11

16. Solve the system using elimination:

5x + 3y = 21

2x - y = 4

17. Solve the system using elimination:

8x - 3y = 18

x + 2y = 7

18. Solve the system using elimination:

4x + y = 14

6x - 2y = 10

19. Solve the system using elimination:

9x - 4y = 23

3x + y = 10

20. Solve the system using elimination:
    2x + y = 8
    3x - 2y = 1

3. Finding the Distance Between Two Points

21. Find the distance between the points (-5, -1) and (7, 11).

22. Find the distance between the points (0, 0) and (5, 12).

23. Find the distance between the points (-8, -6) and (4, 5).

24. Find the distance between the points (3, -2) and (16, 3).

25. Find the distance between the points (1, 2) and (10, 7).

26. Find the distance between the points (4, -5) and (15, -2).

27. Find the distance between the points (-6, -3) and (7, 7).

28. Find the distance between the points (2, 1) and (13, 5).

29. Find the distance between the points (0, -7) and (12, 6).

30. Find the distance between the points (-4, -2) and (9, 10).

4. Finding the Midpoint Between Two Points

31. Find the midpoint between the points (-4, -4) and (2, 2).

32. Find the midpoint between the points (6, 6) and (0, 0).

33. Find the midpoint between the points (-10, -10) and (-2, -2).

34. Find the midpoint between the points (8, 8) and (4, 4).

35. Find the midpoint between the points (-6, -6) and (-4, -4).

36. Find the midpoint between the points (1, 1) and (5, 5).

37. Find the midpoint between the points (0, 0) and (-6, -6).

38. Find the midpoint between the points (2, 2) and (10, 10).

39. Find the midpoint between the points (3, 3) and (7, 7).

40. Find the midpoint between the points (-9, -9) and (-1, -1).

5. Properties of Exponents

41. Simplify: $x^3 * x^5 =$

42. Simplify : $2^4 * 2^3 =$

43. Simplify: $y^6 \div y^2 =$

44. Simplify: $((a^3)^4) =$

45. Simplify: $5^2 * 5^3 =$

46. Simplify: $((x^5) * (x^2)) \div (x^4) =$

47. Simplify: $\dfrac{10^6}{10^3} + \dfrac{10^9}{10^4} =$

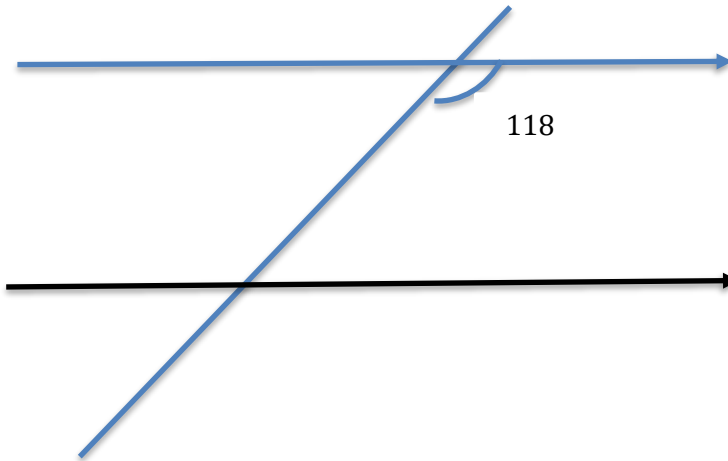48. Simplify: $\dfrac{((b^4)^3)^2}{((b^3)^4)^2} =$

49. Simplify: $\dfrac{(3^2)*(3^4)}{3^3} =$

50. Simplify: $\dfrac{(m^7)*(m^5)}{(m^9)} =$

6. Properties of parallel lines and angels

51. find all angels

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52. find all angels

35   35