

****Show all work****

CP Algebra I **Name:** _____
Summer Packet 2010

Simplify:

1. $2x^2 - 3x - 4x^2 + 8x$

2. $3x(4x^2 - 2x) - 2(4x^2 + 8x)$

Solve:

3. $3x + 1 = 5x + 10$

Solve:

4. $\frac{x+3}{4} = 2x - 5$

Simplify:

5. $2\sqrt{5} + 7\sqrt{5}$

Simplify:

6. $5\sqrt{2} + 3\sqrt{5} - 8\sqrt{5}$

7. $\sqrt{80}$

8. $\frac{1}{\sqrt{2}}$

9. $(2x - 3)^2$

10. $(x - 1)(2x + 3)^2$

Solve by factoring:

11. $x^2 + 7x - 18 = 0$

Solve:

12. $x + 5 = 3(x - 1)$

Solve:

13. $\frac{1}{2}(2x + 8) = 6$

14. Forty percent of what number is 120 ?

Solve:

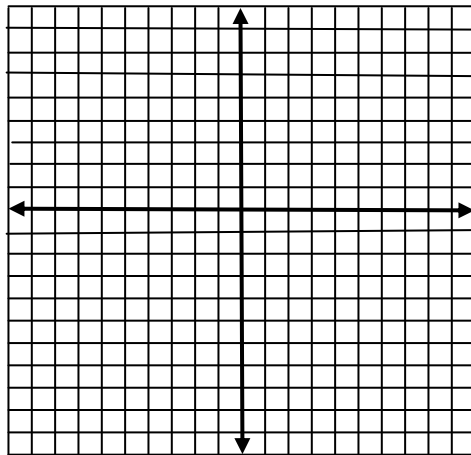
15. $3\frac{1}{2}n - \frac{7}{12} = \frac{3}{4}$

Expand:

16. $2x(2 - 3x)$

Graph:

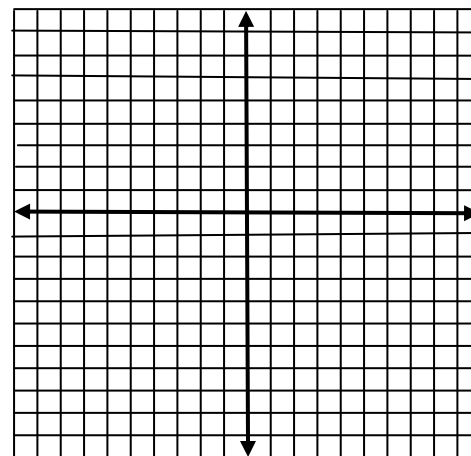
17. $y = \frac{-2}{5}x + 1$



18. Convert 15 min to sec

Graph:

19. $4x + 6y = 24$



Simplify:

20. $2\frac{3}{4} \div 3\frac{1}{2}$

Simplify:

21. $-5(-7-3) - 3(-4)$

Simplify:

22. $\frac{-5 - (-3) + 8}{6 - 3(-2)}$

Simplify:

23. $4\sqrt{5} - 5\sqrt{6} - 2\sqrt{5} + 3\sqrt{6}$

24. $-5\sqrt{3} - 4\sqrt{3} - 2$

Multiply:

25. $(2x-3)(x^2+2x-5)$

Solve:

26. $\frac{3x-2}{4} + \frac{x-3}{3} = 1$

Solve:

27. $\frac{x-2}{2} - \frac{x-3}{3} = 3$

Solve:

28. $(x)^2 = 49$

Solve:

29. $\sqrt{x} = 4$

Simplify:

30. $\frac{4x}{5} - \frac{3x}{5}$

Simplify:

31. $\frac{6}{5} - \frac{5}{2}$

Simplify:

32. $12.045 - 7.008$

Solve:

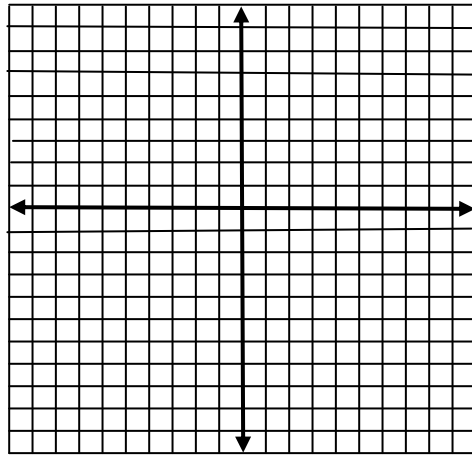
33. $3x+3-6x-6=19$

Solve:

34. $3(x+3)+6(x-6)=10$

Graph:

35. $y = 4x$



Simplify:

36. $\sqrt{144}$

37. Twice the sum of five and a number is equal to 12. Find the number.

Solve:

38. $0.3x+0.9=2.1$

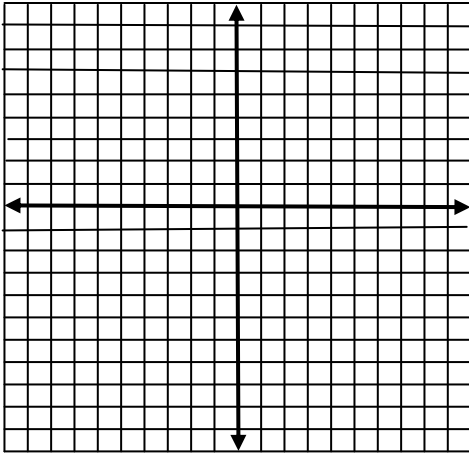
39. What percent of 40 is 15?

Simplify:

40. $(3x^2)^3$

Graph:

41. $y = 2$



Factor:

48. $x^2 - 7x + 12$

Simplify:

49. $12\frac{1}{7} - 5\frac{5}{6}$

Simplify:

50. $2a^2 + 5x - 8 - 3(2a^2 - 3x + 2)$

Simplify:

42. $(x^2y^3)(x^4y^5)$

Solve:

43. $-3[2 + 4x - 3] = -3x^0$

44. The sum of two numbers is 136 and their difference is 50. What are the numbers?

Evaluate:

45. $ac^2(a^2 - c)$ if $a = \frac{-1}{5}$ and $c = \frac{1}{2}$

Solve by factoring:

46. $2x^2 - 3x - 20 = 0$

Evaluate:

47. $ac - 2ac^2$ $a = 2$ and $c = -3$