# Red Bank Catholic High School
# CP Algebra II Summer Practice

**Instruction:**

1. **These problems are for the students who will be attending CP Algebra II in the upcoming Fall term.**
2. **The students should practice checking their answers to determine if they are correct of not.**

1. Solve the equation $5x-7=3x+5$?
2. Solve the equation $3(2x-7)=2-3x$?
3. Solve the equation $2(11-3x)=5(7-2x)$?
4. Solve the equation $2(3x-5)+3=2x+1$?
5. Solve the equation $3(5x-4)-5=2(7-5x)+3$?
6. Solve the equation $5(3-2x)+7=2(2-3x)+9$?
7. Solve the equation $\frac{1}{2}(2x+5)+3=3x+5$?
8. Solve the equation $\frac{1}{3}(x+4)-5=2-\frac{5}{2}x$?
9. Solve the equation $5-(2x-7)=2(2-3x)$?
10. Solve the equation $3-2(3-7x)=\frac{2}{3}(6-3x)$?
11. Evaluate the expression $x-y(x+y)$ if $x=5$ & $y=9$
12. Evaluate the expression $x-y(x+y)$ if $x=5$ & $y=-9$
13. Evaluate the expression $x-y(x-y)$ if $x=-3$ & $y=-6$
14. Evaluate the expression $x-y(x-y)^2$ if $x=3$ & $y=5$
15. Evaluate the expression $x-y(x+y)^2$ if $x=5$ & $=-7$
16. Evaluate the expression $x-y\,|x-y|$ if $x=2$ & $=4$
17. Evaluate the expression $x+y\,|x-y|$ if $x=2$ & $=-4$
18. The slope of the line that goes through the points $(2,4)$ and $(5,6)$.
19. The slope of the line that goes through the points $(2,8)$ and $(5,3)$.
20. The slope of the line that goes through the points $(-3,4)$ and $(7,2)$.
21. The slope of the line that goes through the points $(-3,4)$ and $(4,-6)$.
22. The slope of the line that goes through the points $(-5,4)$ and $(-2,9)$.
23. The slope of the line that goes through the points $(-4,4)$ and $(-11,7)$.

24. What is the slope of the line $y = -3x + 5$
25. What is the slope of the line $y = -\frac{5}{2}x + 5$
26. What is the slope of the line $3y + 2x = 5$
27. What is the slope of the line $3y = 5x + 5$
28. What is the slope of the line $5y = 5 - 2x$
29. What is the y-intercept of the line $3 = \frac{2}{7}x - 8$
30. What is the y-intercept of the line $3y + 2x = 8$
31. What is the y-intercept of the line $3y - 2x = 11$
32. What is the y-intercept of the line $9y = 5x - 3$
33. What is the slope of the line parallel to the line $y = -3x + 5$
34. What is the slope of the line perpendicular to the line $y = 3x - 2$
35. What is the slope of the line perpendicular to the line $y = \frac{1}{2}x + 11$
36. What is the slope of the line perpendicular to the line $y = -\frac{7}{5}x + 11$
37. What is the slope-intercept form of the line *with* slope of $\frac{3}{4}$ & contains the point (8, 1).
38. What is the slope-intercept form of the line *with* slope of $-\frac{5}{3}$ & contains the point (–6, 12).
39. What is the Standard form of the line *with* slope of $\frac{3}{2}$ & contains the point (4, 5).
40. What is the Standard form of the line *with* slope of $-\frac{3}{5}$ & contains the point (2, 4).
41. What is the Standard form of the line *with* slope of $\frac{2}{3}$ & contains the point (–2, –7).
42. What is the slope-intercept form of the line that contains the point (3, 1) & (–2, –7).
43. Graph the line $y = -4x + 12$
44. Graph the line $y = \frac{2}{3}x - 6$
45. Graph the line $3y + 2x = 12$
46. Graph the line $3y - 4x = 12$

47. What is the solution of the system of equation $3x = 51$
$x + 2y = 35$

48. What is the solution of the system of equation $x + y = 36$
$2x - 2y = 72$

49. What is the solution of the system of equation $x + y = 9$
$2x - y = 6$

50. What is the solution of the system of equation $2x + 3y = 19$
$x + 2y = 11$

51. The cafeteria charges 65 cents for a container of juice. Robyn paid $2.25 for a sandwich and a container of juice. How much is the sandwich?

52. Chelsea paid $3.23 for 2 tubes of toothpaste. She paid the regular price of $1.79 for one tube, but she used a sales coupon for the 2nd tube. How much is the sales coupon worth?

53. During a sale, Madeline purchased a box of pencil for $4.69. A week later, she had to pay the standard price for another box of pencil. If she paid a total of $10.64 for both boxes, how much was the price reduction for the sale?

54. Quinn sells both hardcover and paperback versions of a book. If the hardcover sells for $16.50 each and the paperback for $4.95 each. How many copies of the hardcover must be sold in order to take in as much money as selling 30 copies of the paperback?

55. 3,000 people attended the Spring Concert. Some paid $10 for the ticket and some paid $5. If the total amount received is $25,000, how many ticket of each kind was sold?

56. Factor $x^2 + 14x + 40$

57. Factor $x^2 - 7x + 12$

58. Factor $x^2 - 6x + 6$

59. Factor $2x^2 - 7x - 4$

60. Factor $3x^2 - 10x + 7$

61. Evaluate $\sqrt{64}$

62. Evaluate $\sqrt{169}$

63. Evaluate $\sqrt{40}$

64. Evaluate $\sqrt{60}$

65. Evaluate $\sqrt{48}$