Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Algebra

Chapter 9 Test

**Solve each system by the graphing method**

1. x + y = 6 1.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x – y = 2

2. x + y = 9 2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

y = 2x

3. x + y = 0 3.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x + 2y = 2

4. y = 3 – x 4.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x + y = 5

5. y = 2/3x + 1 5.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

y = -2/3x + 5

**Solve by the substitution method**

6. 3x + y = 5 6.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

y = 2x

7. 2a + b = 4 7.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b = 1 – a

8. 4c – 3d = 9 8.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2c – d = 5

9. x + 3y = 2 9.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2x + 3y = 7

10. 3x – 2y = 5 10.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x + 2y = 15

**Solve by the addition-or-subtraction method**

11. r – s = -3 11.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

r + s = 9

12. x – 3y = 2 12.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x + 4y = 16

13. 6r + 5y = -8 13.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2r – 5y = -16

14. 12m + 3n = 51 14.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7m – 3n = 44

15. 8g + 7h = 26 15.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8g – 10h = 60

**Solve by using multiplication with addition-or-subtraction method**

16. v + w = 3 16.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3v – 5w = 17

17. 4a – 3b = -1 17.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a – b = -1

18. 3x – y = 3 18.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x + 3y = 11

19. 3x + 4y = -25 19.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2x – 3y = 6

20. 2w – 3z = -1 20.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3w + 4z = 24

**Graph each inequality**

21. x < 1

22. y > -1

23. y < 3 – x

24. 4x – y > 6

25. 4(x – y) > 3x + 2

**Graph each system of inequalities**

26. y > 3

x < -2

27. x < 3

y > 5 – x

28. y > 2x – 3

y < 2x + 6

29. 3x – y > -1

x – y > -4

30. 3x – 4y < -12

3x + 4y > 0