

ALGEBRA 2

Practice Quiz 6.1-6.4

NAME _____

Identify the quadratic, linear, and constant term in each function. (2 Points)

1. $h(x) = 3a^2 - 5a + 11$

2. $f(x) = 5b^2 - 8b - 3$

1. Q=___ L=___ C=___

2. Q=___ L=___ C=___

Graph each function. Name the vertex, axis of symmetry, and the roots (solutions). (4 Points)

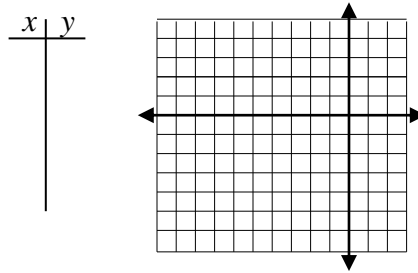
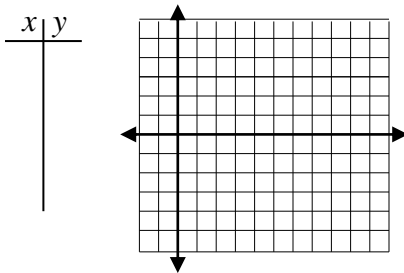
3. $y = x^2 - 6x$

4. $y = x^2 + 6x + 8$

3. Vertex = _____

Axis of Sym=_____

Roots = _____



4. Vertex = _____

Axis of Sym=_____

Roots = _____

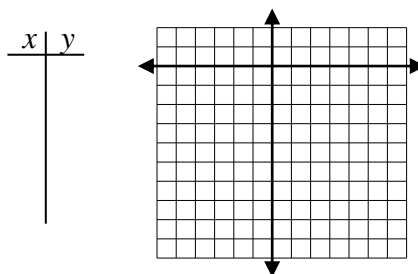
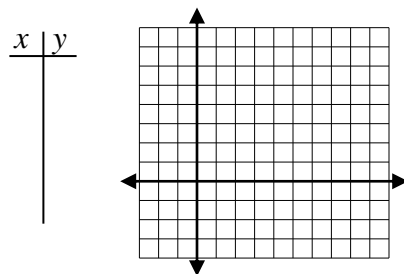
5. $y = x^2 - 7x + 6$

6. $y = x^2 - 16$

5. Vertex = _____

Axis of Sym=_____

Roots = _____



6. Vertex = _____

Axis of Sym=_____

Roots = _____

7. _____

8. _____

Solve each by FACTORING. (2 Points)

7. $c^2 + 7c + 12 = 0$

8. $d^2 - 2d - 15 = 0$

Points(24)_____

Solve each by **FACTORING**. (2 Points)

9. $e^2 + 10e + 25 = 0$

10. $3f^2 + 6f - 24 = 0$

9. _____

11. $g^2 - 64 = 0$

12. $2h^2 + 7h = 30$

10. _____

11. _____

12. _____

13. _____

Find the value of c that makes the trinomial a perfect square. (2 Points)

13. $x^2 + 12x + c$

14. $x^2 + 7x + c$

14. _____

15. _____

Solve by **COMPLETING THE SQUARE**. (2 Points)

15. $m^2 - 4m = 12$

16. $n^2 + 2n = 24$

16. _____

17. _____

18. _____

Points(20)_____

17. $p^2 - 8p + 20 = 0$

18. $q^2 - 4q - 32 = 0$

Solve by COMPLETING THE SQUARE. (2 Points)

19. $t^2 + 6t = -4$

20. $v^2 + 10v = 7$

19. _____

20. _____

Solve by using the QUADRATIC FORMULA. (2 Points)

21. $a^2 - 2a - 8 = 0$

22. $b^2 + 9b + 20 = 0$

21. _____

22. _____

23. _____

24. _____

23. $3c^2 + 6c = 4$

24. $d^2 + 9d = -5$

25. _____

26. _____

Points(16)_____

25. $e^2 + 5e = 9$

26. $2f^2 + 3f = 8$