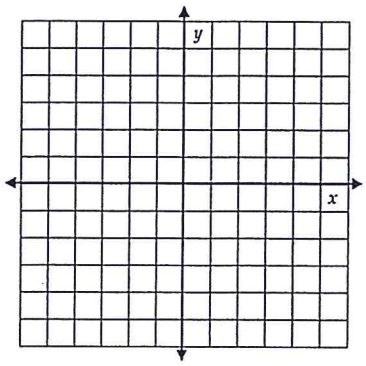
Math 3 Readiness Check

Name:_____

Directions: Show all work. Check your answers carefully and report your answers in the appropriate format for each question.

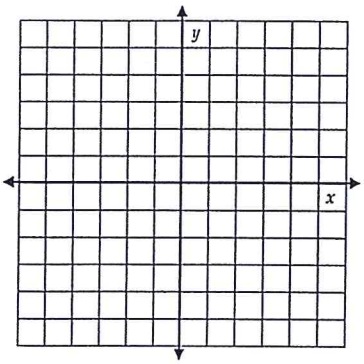
1. Graph $y = -3x + 5$



2. Write the equation of the line containing

(4 , 3) and (20 , 11)

3. Graph $y = |x - 4| + 5$



4. Simplify: a. $(x^3y^0w^2)^2$

5. Evaluate a. $5^{-2} \cdot 3^0$

6. Evaluate b. $(\sqrt[3]{8})^5$

7. Simplify a. $\sqrt{45}$

ANSWERS:

1. See Graph
2. _____
3. See Graph
4. _____
5. _____
6. _____
7. _____

8. Find the difference. $(7x^2 + 9x - 3) - (5x^2 - 2x - 6)$

9. Find the product. $(8m + 3)(2m - 7)$.

10. Find the product. $(x + 5)^2$

11. Find the product. $(3x + 7)(3x - 7)$

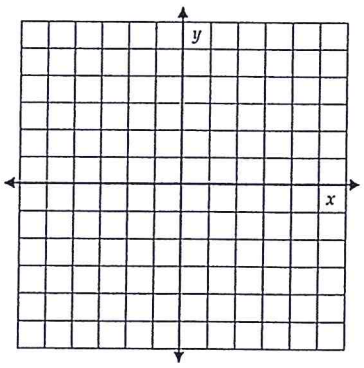
12. Factor the polynomial completely. $3x^2 + 18x$

13. Factor the polynomial completely. $x^2 - x - 56$

14. Factor the polynomial completely. $w^2 - 25$

15. Use factoring and the zero-product property to solve the equation.
$x^2 + 10x + 24 = 0$

16. Graph $f(x) = x^2 - 2x + 3$



17. Tell whether the function has a minimum or maximum. Then find its value.
$f(x) = -4x^2 + 16x - 10$

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

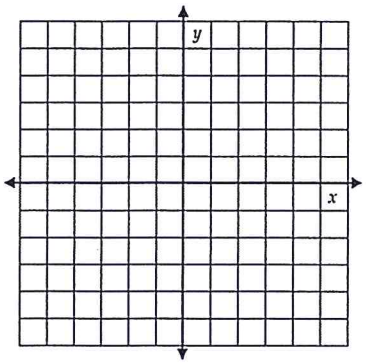
15. _____

16. See Graph

17. _____

_____

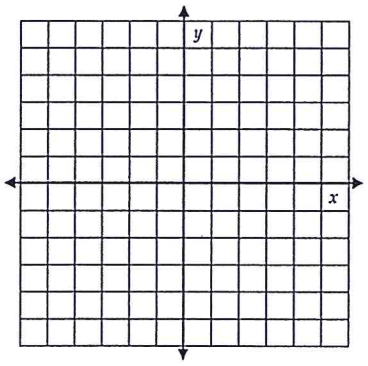
18. Graph $g(x) = 3(x-2)^2 - 6$



19. Write the quadratic equation in vertex form by completing the square.

$y = x^2 + 10x + 7$

20. Graph $f(x) = (x-2)(x-6)$



21. Simplify the radical: $\sqrt{-25}$

22. Solve the equation by completing the square.

$x^2 - 6x = 1$

23. Solve the equation using the quadratic formula.

$x^2 - 7x + 2 = 0$

24. Find the product:

$(6 + 3i)(2 - 5i)$

25. Solve the equation

$2x^2 - 5 = 93$

26. Find the zeros of the function: $f(x) = x^2 - 5x - 24$

18. See Graph

19. _____

20. See Graph

21. _____

22. _____

23. _____

24. _____

25. _____

26. _____