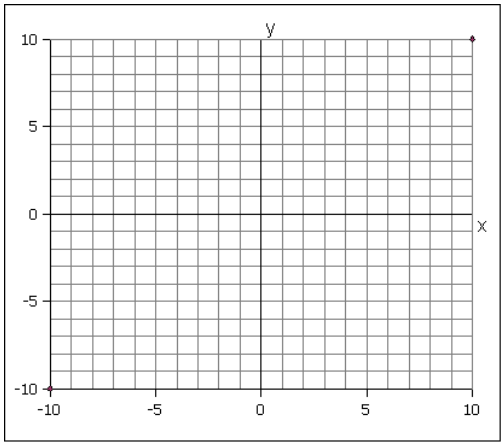
MS 100 College Algebra Summer 2007 PreQuiz • Name: _____

1. A ball is rolling at 7.5 feet per second. How far will the ball roll in six seconds?

2.Plot the following coordinates on the x-y graph on the answer sheet, labeling them with the letter shown:

A. (3, 8) B. (−4, 6) C. (−7, −8) D. (7, −2)



3. Find the slope of a line through (−7, −8) and (7, −2).

4. Find the y-intercept of a line through (−7, −8) and (7, −2).

5. Write the slope-intercept form of a line through (−7, −8) and (7, −2).

6. Use the slope-intercept form of a line through (−7, −8) and (7, −2) to predict the y-value for an x-value of 49.

7. Use the slope-intercept form of a line through (−7, −8) and (7, −2) to solve for the x-value when the y-value is 28.

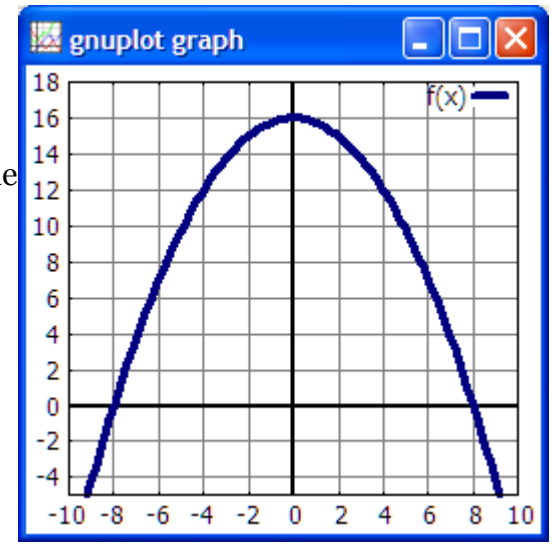
8. Is the line y = 5x + 1 parallel, perpendicular, or neither to the line through (−7, −8) and (7, −2).

9. What is the name of the shape of the curved function on the right?

10. What is the y-intercept for the curved function on the right?

11. What are the x-intercepts for the curved function on the right?

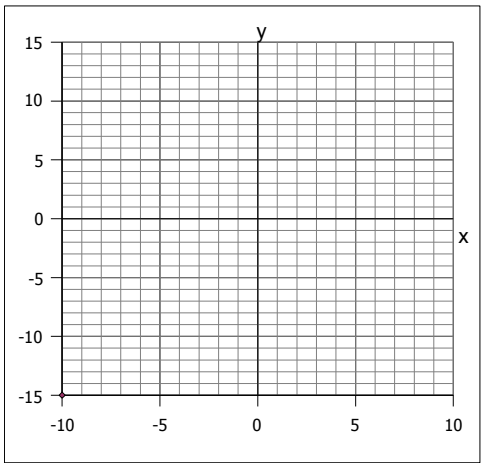
12. What is the degree of the curved function on the right?



13. Solve for x by factoring: $x^2 + 13x + 42 = 0$

14. Solve for x by factoring: $x^2 + 2x - 323 = 0$

15. Determine $\frac{1+\sqrt{5}}{2}$ to three decimal places.



16. Solve by completing the square: $x^2 - x - 1 = 0$

17. On the graph sketch the function:
$y = x^2 + 3x - 10$.

18. Solve for x by the method of your choice: $x^2 - 8x + 41 = 0$

19. Given the standard form equation of a parabola $(y-k)=\frac{1}{4p}(x-h)^2$ with a vertex at (h, k) and a focus at (h, k + p), what is the equation of a parabola with a vertex of (5, 10) and a focus at (5, 10.25)?

20. What is the name of the shape generated by the equation $\frac{x^2}{36}+\frac{y}{36}=1$?

21. What is the name of the shape generated by the equation $\frac{x^2}{36}+\frac{y^2}{36}=1$?

22. What is the name of the shape generated by the equation $\frac{x^2}{36}+\frac{y^2}{25}=1$?

23. What is the name of the shape generated by the equation $\frac{x^2}{36}-\frac{y^2}{25}=1$?