Honors Math 2

Name_

1. Identify the zeros of $f(x) = -x^2 - 3x + 4 = -(x+4)(x-1)$

Zeros:_____





- _.
- 2. These three graphs show the functions: A) $v = x^2$
- A) $y = x^2$
- B) $y = x^2 + 3$
- C) $y = 3x^2$

Label the three graphs with the correct function.



3. Given the following table and information:

x	у
1	5
2	8
2	9
3	7
3	9
4	5
4	8
5	3

*A certain linear function passes through exactly four of the points in the table.

*A certain quadratic function passes through the remaining four points.

Write the linear equation:

Write the quadratic equation:

Graph the line and the parabola.



4. For all real numbers x, $(3x + 2)(2x - 5) = ax^2 + kx + n$

Find the values of *a*, *k*, *n*.

Sugar Prices



- 5. Which point shows the heaviest bag?
- 6. Which point shows the cheapest bag?
- 7. Which points show bags with the same weight?
- 8. Which points show bags with the same price?
- 9. Which of F or C give the best value for money? How can you tell?
- 10. The graph of $y = 2^x$ lies in which Quadrant(s)?a) I, IIb) I onlyc) I, IIId) I, IV
- 11. The graph of the equation y = -2 is a line
- (1) parallel to the x-axis
- (2) parallel to the y-axis
- (3) passing through the origin
- (4) passing through the point (-2, 0)

12. Completely factored, $\frac{3x^2}{7} - \frac{5x}{7} - \frac{2}{7}$ is equivalent to:

a) $\frac{3}{7}(x-2)(x-1)$ b) $\frac{1}{7}(3x-1)(x+2)$ c) $\frac{1}{7}(3x+1)(x-2)$ d) 7(3x-1)(x+2)