## **RETEST REVIEW: SYSTEMS OF EQUATIONS**

Solve each system by the method specified

| 1) Solvo by graphing    |  |
|-------------------------|--|
|                         |  |
| 0                       |  |
| 3x + 4y = 12            |  |
| x + 2y = 4              |  |
|                         |  |
|                         |  |
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|                         |  |
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|                         |  |
| Solution:               | <b>│                                    </b>   |
|                         |  |
| 2) Solve by graphing.   |  |
| y - 3x + 4              | □ · · · · · · · · · · · <b>∧</b> · · · · · · · · · · · · · · · · · · ·   |
| y = 0x + +              |  |
| and                     |  |
|                         |  |
| x y                     |  |
| -3 -5                   |  |
| -1 1                    |  |
| 1 7                     | <del>&lt; · · · · · · · · · · · · · · · · · · ·</del>  |
|                         |  |
|                         |  |
| Equation (from table):  |  |
|                         |  |
|                         |  |
|                         |  |
| Oslution                | $\square \square $ |
| Solution:               |  |
| 3) Solve using matrices |  |
|                         |  |
| 2x + 5y = 17            |  |
| 6x - 5y = -9            |  |
|                         |  |
|                         |  |
|                         |  |
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|                         |  |
|                         |  |
|                         |  |
| Solution:               |  |
|                         |  |

| 4) Solve using matrices.                    |                              |
|---|------------------------------|
| 5x - 9y = -3                                |                              |
| 4x - 3y = 6                                 |                              |
|   |                              |
|   |                              |
|   |                              |
|   |                              |
| Solution:                                   |                              |
| 5) Two lines have the given equations. At w | hat point do they intersect? |
|   | y = 2x - 1<br>3x - y = -6    |
|   |                              |
|   |                              |
|   |                              |
|   |                              |
|   |                              |

For each word problem, set up a system of equations, and solve for the value(s) indicated.6) If 8 pens and 7 pencils cost \$3.37 while 5 pens and 11 pencils cost \$3.10, how much does each pen and pencil cost?

Equations:\_\_\_\_\_

Solution:\_\_\_\_\_

| 7) Timmy has 180 marbles, some plain and some colored. If there are 32 more plain marbles than colored marbles, how many colored marbles does he have? |              |                  |              |                           |        |  |  |
|--|--------------|------------------|--------------|---------------------------|--------|--|--|
|  | Equatio      | ns:              |              |                           |        |  |  |
|  |              |                  |              |                           |        |  |  |
|  |              |                  |              |                           |        |  |  |
|  |              |                  |              |                           |        |  |  |
|  |              |                  |              |                           |        |  |  |
|  |              |                  |              |                           |        |  |  |
|  |              |                  |              |                           |        |  |  |
| Solution:  |              |                  |              |                           |        |  |  |
| 8) If (x, -3) is a solution for the  | ne following | g system of e    | quations, wh | nat is the value          | of x?  |  |  |
|  |              | 4x – y<br>3x + y | = 15<br>= 6  |                           |        |  |  |
|  |              |                  |              |                           |        |  |  |
|  |              |                  |              |                           |        |  |  |
|  |              |                  |              |                           |        |  |  |
|  |              |                  |              |                           |        |  |  |
| 9) Holt bought a large pizza and a liter of drink for \$11, not including tax. If the price of the pizza, p,   |              |                  |              |                           |        |  |  |
| used to find the cost of the pizza and the drink. (do not solve)   |              |                  |              |                           |        |  |  |
|  | Faultions:   |                  |              |                           |        |  |  |
|  |              |                  |              |                           |        |  |  |
|  | -            |                  |              |                           |        |  |  |
| Answers in random order:   | 3            | (4, 0)           | 74           | p + d = 11                |        |  |  |
|  | 0.15         | (-7, -15)        | 0.29         | (3, 2)                    | (1, 3) |  |  |
|  | p = 3d + 5   |                  | infir        | infinitely many solutions |        |  |  |