Systems of Equations REVIEW

SHOW ALL WORK FOR FULL CREDIT!! Write answers as coordinate points. No graphing calculators!!

Multiple Choice

1. Which of the following are methods for solving systems of equations (select all that apply)
   a) graphing
   b) substitution
   c) Using a Protractor
   d) elimination

2. If a system of equations has infinite solutions, what does the graph look like?
   a) intersecting lines
   b) parallel lines
   c) perpendicular lines
   d) coinciding lines

3. Solve the system of equations using the graphing method. What does the graph look like?
   \[ y = 2x \]
   \[ y = -\frac{3}{2}x + 5 \]
   a) 2 lines intersecting at (4, 2))
   b) 2 lines intersecting at (2, 4)
   c) 2 lines intersecting at (2, 6)
   d) 2 lines intersecting at (6, 2)

4. Solve this system of equations using your method of choice:
   \[ 6x + 7y = 20 \]
   \[ y = 2x \]
   a) (2, 1)
   b) (3, 1)
   c) (1, 3)
   d) (1, 2)
5. What is the result of the correct first step to solve this system of equations by elimination?

\[
\begin{align*}
4x - 3y &= -10 \\
2x + 3y &= 4
\end{align*}
\]

a) 6x = -6
b) 2x = -6
c) 6x = 14
d) 2x = 14

6. Select the coordinate point that is a solution to this system of equations using your method of choice.

\[
\begin{align*}
-5x + y &= -2 \\
-3x + 6y &= -12
\end{align*}
\]

a) (2, 3)
b) (5, 4)
c) (3, 1)
d) (0, -2)

7. When using substitution to solve this system of equations, what is the result of the first step?

\[
\begin{align*}
y &= x + 1 \\
2x + 3y &= 4
\end{align*}
\]

a) 2x + 3(x + 1) = 4
b) 2(x + 1) + 3y = 4
c) 2x + 3x + 1 = 4
d) 2x + 3y(x + 1) = 4

8. If elimination is the method used to solve this system of equations, what is the result of the first step?

\[
\begin{align*}
4x + 3y &= 6 \\
4x - y &= 2
\end{align*}
\]

a) 2y = 8
b) 2x = 8
c) 4y = 4
d) 4y = 8
9. Solve by graphing

\[ x + 3y = 1 \]
\[-3x - 3y = -15 \]

10. Solve by substitution:

\[-3x - 8y = 20 \]
\[-5x + y = 19 \]

11. Solve by elimination:

\[-3x + 7y = -16 \]
\[-9x + 5y = 16 \]
Write a system of equations and then solve by the method of your choice:

12. Your teacher is giving you a test worth 100 points containing 40 questions. There are two-point and four-point questions on the test. How many of each type of question are on the test?

13. At Freddy’s, three steak burgers and two orders of fries cost $18. Two steak burgers and three orders of fries cost $15.75. What is the cost for one steak burger? What is the cost of one order of fries?