TEST NAME: **Math 8 online Jan 31**
TEST ID: **2842312**
GRADE: **08 - Eighth Grade**
SUBJECT: **Mathematics**
TEST CATEGORY: **My Classroom**

Student: _____

Class: _____

Date: _____

1. Which equation has an infinite number of solutions?

   A. $7(1-4x)+3x=7$

   B. $5(2-4x)+4x=10$

   C. $8(2-2x)+16x=9$

   D. $6(3-2x)+12x=18$

2. How many solutions does the equation $5(x-2)=8+5x$ have?

   A. no solution

   B. one solution

   C. two solutions

   D. infinitely many solutions

3. Which equation has no solution?

   A. $-5+8x-9=3(x+3)$

   B. $-2(6-3x)=-12+6x$

   C. $6-2(3-2x)=-4(3-x)$

   D. $-(4x+9)=2x-3(2x+3)$

4. Which equation has no solution?

A $4x - 9 = -9$

B. $3x + 2 = 17$

C. $2x + 4 = 2x + 6$

D. $x + 3x = 8x - 4x$

5. How many solutions does the equation $2(x + 4) = 2x + 8$ have?

A no solutions

B. one solution

C. two solutions

D. infinite solutions

6. Which of these equations does NOT have any solutions?

A $10 - 3x - 1 = 7 + 3x + 2$

B. $12 - 7x - 10 = x - 8x + 2$

C. $13 - 4x + 2 = 3x - 7x + 2$

D. $15 - 2x - 2 = 10x + 3x + 2$

7. A student solved an equation for the unknown value of n as 0 =0. Which set represents all of the possible values of n?

A only zero can be the solution

B. only positive numbers can be the solution

C. only negative numbers can be the solution

D. any number can be the solution

8. Solve the equation $2(3x - 4) = 8x - 4 - 2x$.

   A.   no solution

   B.   infinitely many solutions

   C. $x = -1$

   D. $x = 4$

9. Which statement correctly describes the solution(s) of the equation below?

   $$-2 + x - 3 = 2x + 5 - x$$

   A. The equation has one solution, which is -5.

   B. The equation has one solution, which is 5.

   C. The equation has infinitely many solutions.

   D. The equation has no solution.

10. Which equation has infinitely many solutions?

   A. $8x = 8(x - 1) + 1$

   B. $2x - 5 = 2(x - 5)$

   C. $22 - 6x = 2(3x - 11)$

   D. $3(5x - 4) - 8x = 7x - 12$

11. In which equation is y a linear function of x?

A. $y = \dfrac{2}{x}$

B. $y = \dfrac{x}{2}$

C. $y = x^2$

D. $y = \sqrt{2x}$

12. In which equation is y a nonlinear function of x?

A. $2x = 3y - 6$

B. $y = 5$

C. $2x^2 = 3y - 6$

D. $x = 5$

13. Which equation is a nonlinear function?

A. $y = {}^-4x + 2$

B. $y = 5$

C. $y = x^2$

D. $y = 5x$

14. **Bacteria grow in colonies over time. Which table shows growth of bacteria colonies that can be modeled by a linear graph?**

A.

Time (in hours)	1	2	3	4
Number of Colonies	1	4	9	16

B.

Time (in hours)	1	2	3	4
Number of Colonies	5	10	15	20

C.

Time (in hours)	1	2	3	4
Number of Colonies	1	16	81	256

D.

Time (in hours)	1	2	3	4
Number of Colonies	5	25	125	625

15. Use this graph to answer the question.
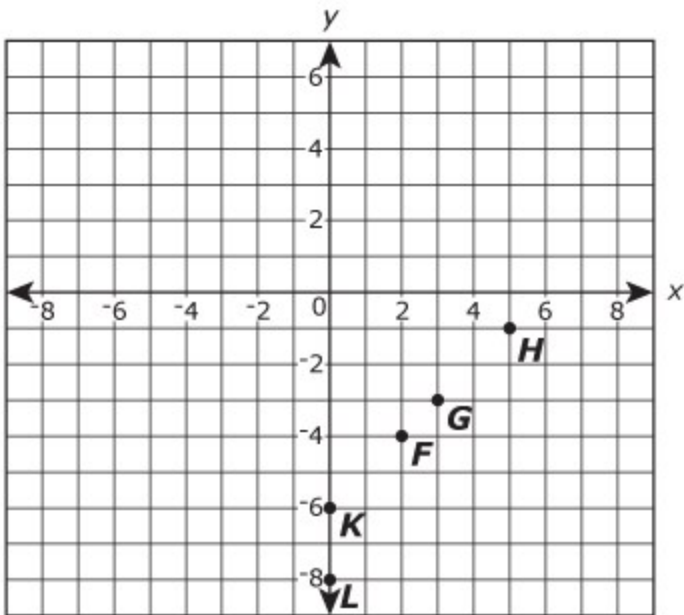
Which set of points cannot be represented in the form $y = mx + b$?

A.   F, G, K

B.   F, H, K

C.   G, H, K

D.   H, K, L