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Solving systems of linear equations

1.$2x-1=y$
$3x-1=y$

Consider the system of equations above. Which of the following statements about this system is true?

A. There is only one (x, y) solution and y is positive.
B. There is only one (x, y) solution and y is negative.
C. There are infinitely many (x, y) solutions.
D. There are no (x, y) solutions.

$2.44(j+2k) = 12$

$22k = -11j + 16$

Consider the system of equations above. How many solutions (j,k) does this system have?

A. 0
B. Exactly 1
C. Exactly 2
D. Infinitely many

$3.5x-2y=6$
$10x-4y=c$
Which of the following choices of c will result in a system of linear equations with no solutions?

A. $c=12$
B. c can be any number other than -12
C. c can be any number other than 12
D. c can be any number

4. $-x=-6y-7$
$x-6y=k$

Consider the system of equations above. Which of the following choices of k will result in a system of equations with infinitely many solutions?

A. Any number
B. Any number except 7
C. 7
D. -7

5. $\frac{6}{5}p + kq = \frac{4}{5}$ $q = \frac{3}{5}p - \frac{2}{5}$

Consider the system of equations above, where k is a constant. For which value of k is there no (p, q) solutions?

A. -2
B. 0
C. 2
D. None of the above

6.$a(p-q) = 1$

$p = 2q-1$

Consider the system of equations above, where a is a constant. For which value of a is $(p, q)=(1, 1)$ a solution?

A. 0

B. 1

C. 2

D. None of the above

7. $a\left(y-\frac{1}{3}\right)+\frac{x}{2}=0 \qquad 3y-x-1=0$

Consider the system of equations above, where a is a constant. For which value of a are there infinitely many (x, y) solutions?

A. $-\frac{3}{2}$

B. $\frac{5}{6}$

C. 3

D. None of the above

8.ay=2x+1
y=2x+2
Consider the system of equations above, where a is a constant. For what value of a are there no (x, y) solutions?

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Thanks

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