

## Part 1. Sample Problems

1. Consider the equation  $2x^2 + x + 34 = 21x - 8$ .
  - (a) Is the number 1 a solution of the equation?
  - (b) Is 3 a solution of the equation?
  - (c) Is  $x = 4$  a solution of the equation?
  - (d) Is 7 a solution of the equation?
2. Consider the equation  $3a - 2b - 1 = (a - b)^2 + 4$ .
  - (a) Is the pair of numbers  $a = 8$  and  $b = 5$  a solution of the equation?
  - (b) Is the pair of numbers  $a = 10$  and  $b = 7$  a solution of the equation?

## Part 2. Practice Problems

1. Consider the equation  $\frac{2x^2 - 11x - 21}{2x + 3} = 3x - (2x + 7)$ .
  - (a) Is the number 8 a solution of the equation?
  - (b) Is 13 a solution of the equation?
  - (c) Is  $x = 10$  a solution of the equation?
2. Consider the equation  $y = \frac{5x - 3}{2}$ .
  - (a) Is the pair of numbers  $x = 1$  and  $y = 1$  a solution of the equation?
  - (b) Is the pair of numbers  $x = 9$  and  $y = 4$  a solution of the equation?
  - (c) Is the pair of numbers  $x = 3$  and  $y = 6$  a solution of the equation?
  - (d) Is the pair of numbers  $x = 17$  and  $y = 41$  a solution of the equation?
3. Consider the equation  $(p - q)^2 + \frac{3p - 1}{6 - q} = 4(p + 1)$ .
  - (a) Is the pair of numbers  $p = 8$  and  $q = 5$  a solution of the equation?
  - (b) Is the pair of numbers  $p = 7$  and  $q = 1$  a solution of the equation?