

Name: _____

Thursday Homework

No Solution, One Solution and Infinite Solutions

Identify whether each equation has one solution, no solution, or an infinite number of solutions. Show your work.

1.
How many solutions does this equation have?

$$6a - 2 = 2(1 + 3a)$$

- A) none
- B) exactly one
- C) exactly two
- D) infinitely many

2.
$$x + 2x + 1 = 3x + 2 + 3$$

3.
$$4(x + 3) - 4 = 8\left(\frac{1}{2}x + 1\right)$$

4.
What should the value of p be for the equation below to have no solutions?
$$p \cdot x = 5 - 10x$$

- A) -10
- B) $-\frac{1}{10}$
- C) $\frac{1}{10}$
- D) 10

Write each decimal as a fraction. Show your work.

5.
$$0.\overline{09}$$

6.
$$0.\overline{63}$$