

## Pre-Test 5

Monday 3<sup>th</sup> Dec 2018

Maths 10

Inequalities

Name: \_\_\_\_\_

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### Problem 1

For what values of  $m$  does the equation

$$mx^2 - 3x + m = 0 \text{ have two solutions?}$$

( You may need the following rule : If  $m^2 < A^2$  then  $-A < m < A$  )

### Problem 3

For what values of  $s$  does the equation

$$(s-1)x^2 - 2(s-3)x + s-3 = 0 \text{ have}$$

- i) a double solution
- ii) no solutions?

### Problem 2

i) For what values of  $\lambda$  does the equation

$$(\lambda + 2)x^2 + 4(\lambda - 4)x + (\lambda + 2) \text{ have a double solution?}$$

ii) For each of these values of  $\lambda$ , what is the solution?