

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

Show work needed to justify your answer.

Date: \_\_\_\_\_

HW: # 12a: Math IBSL - Standard 12 - Quadratic Formula and the Discriminant

5 points

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1. For each equation find the value(s) of  $k$  such that the equation has two distinct real roots.

**a**  $x^2 + 3x + k = 0$

**b**  $kx^2 + 20x + 5 = 0$

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2. For each equation, find the value(s) of  $p$  such that the equation has two equal real roots.

**a**  $x^2 + 5x + p = 0$

**d**  $x^2 - 3px - 2p = 0$

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3. For each equation, find the value(s) of  $m$  such that the equation has no real roots.

**a**  $x^2 - 2x + m = 0$

**b**  $3mx^2 - 6x + 1 = 0$

