



## Problem of the Week

### Problem D

#### The Same Power

Sometimes two powers that are not written with the same base are still equal in value. For example,  $9^3 = 27^2$  and  $(-5)^4 = 25^2$ .

If  $x$  and  $y$  are integers, find all ordered pairs  $(x, y)$  that satisfy the equation

$$(x - 1)^{x+y} = 8^2$$

