

## Examples – Changing the Bases

**Example 1** Find the value of  $x$ ;  $2^5 = 2^{2x-1}$

**Example 2** Find the value of  $x$ ;  $5^x = 125$

**Example 3**      **Solve:**       $2^{6x^2} = 4^{5x+2}$

**Example 4**      **Solve for x.**       $9^{3x} = 27^{x-2}$

**Example 5**      **Solve for n.**  $9^{n-1} = (1/3)^{4n-1}$

**Example 5**      **Solve:**       $4(2^x) - 6 = 58$