Daniel Augusto Bautista Mora   U00151560

1.

A= {7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30}

B = {2,5,7,9,15,22,33}

C= {4,7,10, 13, 16, 19, 22, 25, 28}

$$(A \cap C) \cup (A \oplus B)$$

{2, 5, 7, 8, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 33}

$$((A \cup C) \oplus B) \cap (A - C)$$

{8, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30}

$$((A \cup B) - (A \cap C)) \cap (A \cup B \cup C)$$

{4, 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 23, 24, 26, 27, 29, 30}

2.

a. Número de formas posibles sin María ni Pedro: 360

b. Número de formas posibles con María en el comité: 120

c. Número de formas posibles con María y Pedro en el comité: 240

d. Número de formas posibles con María o Pedro como director: 140

3.

a. 35 a base 2= 100011

b. 38 a base 6 = 102

c. 491 a base 8 = 753

d. 720 a base 16 = 2d0