29. $U = 500$

$|A| = 180$

$|B| = 150$

$|C| = 130$

$|D| = 180$

$|A \cap B| + |A \cap C| \ldots |C \cap D| = 260$

$|A \cap B \cap C| + \ldots = 90$

$|A \cap B \cap C \cap D| = 20$

$180 + 150 + 130 + 130 = 580$

$+580 - 260 + 90 - 20$

390

390 produtos tem pelo menos um defeito

30. $U = 400$

$|A| = 260$

$|B| = 180$

$|C| = 120$

$|A \cap B| = 90 - 30 = 60$

$|A \cap C| = 70 - 30 = 40$

$|B \cap C| = 50 - 30 = 20$

$|A \cap B \cap C| = 30$

$A = 260 - 60 - 40 - 30 = 130$

$B = 180 - 60 - 20 - 30 = 70$

$C = 120 - 40 - 20 - 30 = 30$

$130 + 30 + 40 = 200$

$\dfrac{200}{400} = \dfrac{1}{2} = 50\%$

31. $U = 90$

$x = 18$

$y = 12$

$z = 10$

$x \cap y = 8$

$x \cap z = 6$

$y \cap z = 4$

$x \cap y \cap z = ?$

$x \cup y \cup z = 72$

$19 + 12 + 10 + 8 + 6 + 4 = 58 \quad |x \cap y \cap z|$

$|x \cap y \cap z| = 72 - 58$

$= 14$

$x \cap y \cap z = 14$