

$$(x/2)=(-y/3)=(z) \quad (1)$$

$$(x-2)/3=(y-1)/-5=(z+2)/2 \quad (2)$$

$$3x+2y+6z=0 \quad (1)$$

$$10(x-2)+6(y-1)+15(z+2)=0$$

$$10x-20+6y-6+15z+30=0$$

$$10x+6y+15z+4=0 \quad (2)$$

$$x=2t$$

$$y=-3t$$

$$z=t$$

$$x=3t+2$$

$$y=-5t+1$$

$$z=2t-2$$

$$a_1(2;-3;1)$$

$$a_2(3;-5;2)$$

$$\begin{array}{ccc} i & j & k \\ 2 & -3 & 1 \\ 3 & -5 & 2 \end{array}$$

$$= i((-3) \cdot 2 - 1 \cdot (-5)) - j(2 \cdot 2 - 1 \cdot 3) + k(2 \cdot (-5) - (-3) \cdot 3) =$$

$$= i((-6) - (-5)) - j(4 - 3) + k((-10) - (-9)) =$$

$$= \{-1; -1; -1\}$$

$$a_1 \times a_2 = (-1; -1; -1)$$

$$\begin{array}{ccc}
 x & y & z \\
 2 & -3 & 1 \\
 -1 & -1 & -1
 \end{array} = 4x + y - 5z = 0$$

$$\begin{array}{ccc}
 x-2 & y-1 & z+2 \\
 3 & -5 & 2 \\
 -1 & -1 & -1
 \end{array} = (x-2)7 + (y-1) + 2(z+2) = 7x - 14 + y - 1 + 2z + 4 = 7x + y + 2z - 11 = 0$$

$$3x + 2y + 6z = 0 \quad (1)$$

$$10x + 6y + 15z + 4 = 0 \quad (2)$$

$$4x + y - 5z = 0 \quad (3)$$

$$7x + y + 2z - 11 = 0 \quad (4)$$

a)

$$(1) - (4) = 3x + 2y + 6z - 7x - y - 2z - 11 = -4x + y + 4z - 11$$

$$P(-4; 1; 4)$$

b)

$$(2) - (3) = 10x + 6y + 15z + 4 - 4x - y + 5z = 6x + 5y + 20z + 4$$

$$Q(6; 5; 20)$$