

8. The line  $l_1$  has equation  $\frac{x-2}{4} = \frac{y-4}{-2} = \frac{z+6}{1}$

The plane  $\Pi$  has equation  $x - 2y + z = 6$

The line  $l_2$  is the reflection of the line  $l_1$  in the plane  $\Pi$ .

Find a vector equation of the line  $l_2$