

# ASSIGNMENT TEST 3

1. A straight line  $l$  has Cartesian equation  $\frac{x+2}{1} = \frac{y-2}{-3} = \frac{z+3}{4}$ .
- a Find a vector form of the equation of  $l$ .      b Verify that the point  $(0, 8, 5)$  lies on  $l$ .
2. A plane passes through the points  $A(2, -1, 2)$ ,  $B(1, 3, -1)$  and  $C(4, 2, 5)$ .
- a Find a vector form of the equation of the plane.  
b Find a Cartesian form of the equation of the plane.
3. A Cartesian form of the equation of a plane is  $3x + 2y - 4z = 18$ . Find a vector form of the equation of the plane.