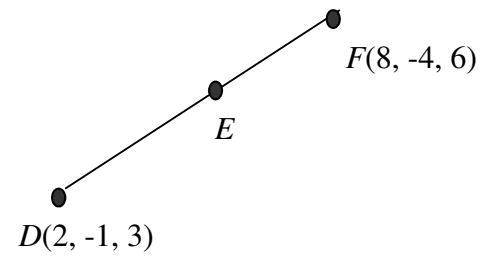


Higher – R&C HW 1

1. Show that $(x+5)$ is a factor of $2x^3 + 7x^2 - 9x + 30$.
2. The point E divides the line ST in the ratio 2:1 as shown in the diagram. Find the co-ordinates of E.



Past paper: 2015 Paper1 Question 1

Vectors $\mathbf{u} = 8\mathbf{i} + 2\mathbf{j} - \mathbf{k}$ and $\mathbf{v} = -3\mathbf{i} + t\mathbf{j} - 6\mathbf{k}$ are perpendicular.

Determine the value of t .