**Summary:**

100000+ variations. Coordinate geometry.

**Question:**

a) Write down the equation of a line which is parallel to the *y*-axis and passes through the point <EFOFEX>
id:fxe{49b7804e-4def-4062-b96a-b8296d90b7dd}
FXGP:DP-DZPNECU
FXData:

</EFOFEX>

b) Find the equation of the line that passes through <EFOFEX>
id:fxe{e8bbe513-f345-4db0-9584-3c3cc327df2f}
FXGP:DP-LWMJBJP
FXData:

</EFOFEX> and has a gradient of <EFOFEX>
id:fxe{135ca391-4a2b-4eb8-89c1-dbdedecb3d40}
FXGP:DP-LWMJBJP
FXData:

</EFOFEX>.

c) Find the equation of the line passing through the point <EFOFEX>
id:fxe{45b2c187-9150-44fb-b24b-068b79acebe7}
FXGP:DP-6VHG2ZU
FXData:

</EFOFEX> and <EFOFEX>
id:fxe{ffd12704-f5ae-488f-a513-c2e1d1e0fd8f}
FXGP:DP-6VHG2ZU
FXData:

</EFOFEX>.

d) Find the equation of a line that is perpendicular to <EFOFEX>
id:fxe{5d755d04-50e4-4483-b423-68f64e04296d}
FXGP:DP-54LFFNY
FXData:

</EFOFEX> and contains the point <EFOFEX>
id:fxe{6c83d1fc-841f-4140-a0e6-9b433f61c69b}
FXGP:DP-54LFFNY
FXData:

</EFOFEX>.

**Solution:**

a) <EFOFEX>
id:fxe{6f506a26-5797-498a-981a-81494a5880f2}
FXGP:DP-DZPNECU
FXData:

</EFOFEX>

b) <EFOFEX>
id:fxe{dfe70453-2553-46c0-b1ad-5e1fece07df4}
FXGP:DP-LWMJBJP
FXData:

</EFOFEX>

c) <EFOFEX>
id:fxe{8c4833b6-5e40-4ed2-984c-7caa6e48649e}
FXGP:DP-6VHG2ZU
FXData:

</EFOFEX>

d) <EFOFEX>
id:fxe{f97e7432-e07f-45c5-90ce-bf055b00c6dd}
FXGP:DP-54LFFNY
FXData:

</EFOFEX>