

6.

**In this question you should show all stages of your working.**

**Solutions relying on calculator technology are not acceptable.**

(a) Using algebra, find all solutions of the equation

$$3x^3 - 17x^2 - 6x = 0$$

**(3)**

(b) Hence find all real solutions of

$$3(y-2)^6 - 17(y-2)^4 - 6(y-2)^2 = 0$$

**(3)**