WORKSHEET

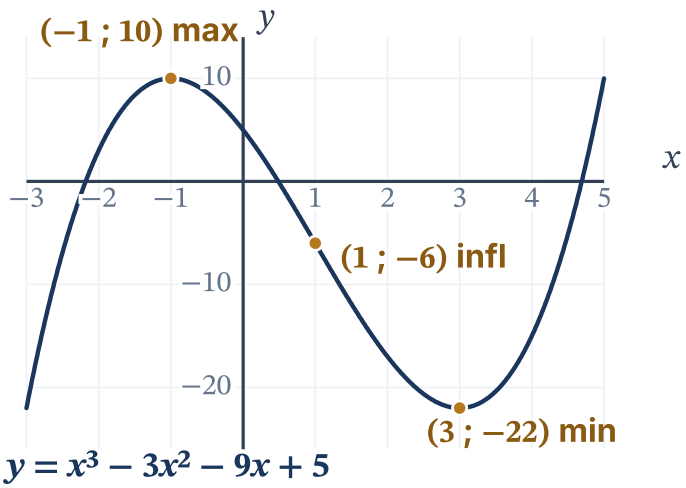
Name: ..... Class: .....

Date: .....

MARK ____ / 18

Answer all questions. Show all your working — marks are awarded for method as well as the final answer.

1 Determine the y-intercept of $f(x) = x^3 - 3x^2 - 9x + 5$. (1)



2 Determine the coordinates of the stationary points of $f(x) = x^3 - 3x^2 - 9x + 5$. (4)

3 State, with a reason, which stationary point is the local maximum. (2)

4 Determine the coordinates of the point of inflection. **(3)**

5 For which values of x is f decreasing? **(2)**

6 For which values of x is f concave up? **(2)**

7 Where does the point of inflection of a cubic always lie relative to the turning points? **(1)**

8 Determine the stationary points of $g(x) = x^3 - 12x$. **(3)**

TOTAL: 18 marks

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