**C1 Chapter 9: TRANSFORMING GRAPHS (AS MATHS)**

**Name: ………………………………..**

**Score:** $\frac{}{20}$ **Percentage: Grade: Target grade:**

**1)**

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The diagram shows a sketch of the curve with equation *y* = f(*x*). The curve crosses the *x*-axis at the points (2, 0) and (4, 0). The minimum point on the curve is P(3, -2).

In separate diagrams sketch the curve with equation

 a) *y* = -f(*x*) [3]

 b) *y* = f(2*x*). [3]

On each diagram, give the coordinates of the points at which the curve crosses the *x*-axis, and the coordinates of the image of P under the given transformation.

[Edexcel Jan 2005]

2)



The diagram shows a sketch of the curve with equation *y* = f(*x*). The passes through the origin *O* and the through the point (6, 0). The maximum point on the curve is (3, 5).

In separate diagrams sketch the curve with equation

 a) *y* = 3f(*x*) [3]

 b) *y* = f(*x+* 2). [3]

On each diagram, show clearly the coordinates of the maximum point and of each point at which the curve crosses the *x*-axis.

[Edexcel May 2005]

3) a) Express  in the form , where p and q are integers. [2]

 b) Sketch the graph of *y* = , stating the coordinates of the minimum point and the point where the graph crosses the *y*-axis. [3]

c) Describe geometrically the transformation that maps the graph of  onto the graph of *y* = . [3]

[AQA June 2006]

**The topics that I need to study further are …**